THE LANCET.

VOL. II.] LONDON, SATURDAY, MAY 3. [1828-8.

LECTURES

ON THE

THEORY AND PRACTICE OF MIDWIFERY

DELIVERED AT GUY'S HOSPITAL BY

DR. BLUNDELL.

LECTURE XXVI.

Of the Extraction of the Fœtus by Craniotomy.

Of all the operations of midwifery, there is none, perhaps, more easily performed, than that of perforation; and many a life, I fear, has fallen a sacrifice to this facility of execution. Of all the operations of our art, however, there is none more dreadful, not to say more awful; for call it embryotomy, craniotomy, or by whatever elegant term you please, in this operation a dagger is struck into the head of an innocent child, often still living, and the brains being reduced to a soft pulp, are suffered to escape at the opening. Much evil, and some good, arises, in society, from not calling things by their right names. This practice, however, I am aware, grows out of the nature of man, and cannot be amended. Hellenize then, and Latinize, as much as you please—"suave sonat," but never suffer a polished and classical appellation to bring before your minds an idea of this operation, divested of that salutary horror with which I conceive it ought at all times to be contemplated. Dreadful, however, as the operation is, the safety of the mother sometimes peremptorily requires its performance; and I here lay before you the severe and formidable instruments by which it is accomplished—the *perforator*, the *crotchet*, the *craniotomy forceps*, of which it is sometimes convenient to have two pair, and the *blunt hook*, on all which I now proceed to comment, beginning with the consideration of the perforator.

The instrument, which I here exhibit, the perforator, is designed to be passed through the child's head by a sort of semi-rotatory *boring action*, the same which you would adopt in perforating a piece of board with an awl; the aperture being enlarged afterwards by dilatation, for which purpose the blades, while lying in the opening, are separated from each other. Observe the section on this folded paper. One of the first instruments employed for embryotomic perforation, was a pair of *large scissors*, recommended by Smellie, and after all, perhaps, if armed with shoulders, as here demonstrated, and committed to *cautious and dexterous* hands only, it is one of the best contrivances we can employ, for the cutting edge of the scissors has its advantages. Since the time of Smellie, however, the form of the instrument has been modified, the scissory edge having been removed; and I here show you a specimen of the kind of instrument now received into British practice.

This instrument opens and shuts like scissors, and, like them, is generally formed with a double point. But Mr. Lowdell, of Stamford Street, has, in my opinion, made a considerable improvement in the instrument, and this, too, very simply, by giving it a single point, as here shown, so that it enters the head with more ease and expedition, rendering the operation safer to the mother, and more speedily extinguishing the remains of life in the child. To prevent the blades from entering the cranium too far, about one inch and a quarter from the point, they are formed with a check, or shoulder, beyond which they cannot be pushed.

Some of these instruments are made very light and elegant, qualities of which I do not myself approve. A light perforator is apt to bend in the shank, or break like that on the table; besides, a roughness of appearance well becomes the austere duties which it is designed to discharge. The instrument I now exhibit, for example, is not thick and strong enough in the shanks, for sometimes you have to open heads which are very firmly ossified; and where that is the case, if the head resists much, there is danger, lest the handles should give way. In choosing a perforator, take care that the joint is very firm, otherwise, when the instrument is in action, disruption and dislocation may oc-

cur. It is better, too, that the blades at the joint should not touch each other laterally, in order that no part of the vagina may be inclosed and injured there. The instrument exhibited will illustrate my meaning. Except the point, all other parts of the instrument should be smooth and rounded. "Thou shalt do no murder," might, perhaps, with great propriety be engraved on the one blade of the instrument; to the obstetric eulogist, Sir Anthony Carlisle, I commit the choice of a motto for the other blade from the same decalogue.

The next instrument, and which I now hold in my hand, is the craniotomy forceps, of great use in the operation of embriotomy. The ancient accoucheurs were possessed of an instrument called the rostrum anatis, which was, in effect, the craniotomy forceps. In the mutations of fashion, this instrument became obsolete, being superseded by the crotchet, till it was again introduced by my valued predecessor. After laying open the head, Dr. Haighton was accustomed sometimes to make use of a pair of *stone forceps*, armed with teeth. Dr. Davis, of George Street, Hanover Square, who has bestowed a great deal of laudable exertion on the subject of instrumental midwifery, has very much improved the ruder instrument of Haighton, not sufficiently powerful in less skilful hands than his own. Here is a very stout pair of forceps of his contrivance, which has, you may perceive, a great number of teeth on one of the blades; these teeth, however, being faulty, because they are too short and delicate, and apt of consequence to bend and wear away under corrosion, becoming thereby unfit to pierce the bones as intended. Corresponding with these dental processes, you have, on the other blade, apertures into which the teeth are received, as in sockets; and thus when the instrument acts as intended, they pass through the bone, giving you a hold sufficiently secure. This instrument, contrived by Haighton, and much improved by Dr. Davis, has been still further perfected by Mr. Holmes of Old Fish Street, a gentleman who, to omit his other instruments, has produced the best pair of craniotomy forceps that I know of, and which I now always use. You see in his instrument there is no display of elegance, but it is a large, strong, and very powerful implement, not liable, when we are using it, either to bend or break. Of this instrument, the grand perfection lies in the size and strength of the teeth. On one blade there are three large dentiform processes, very like the incisor of a rabbit, if I may be allowed to make such a comparison; and in the other blade are three cavities in apposition with these, into which they pass, after thoroughly piercing the bones, so that there is no danger lest the forceps should slip away. Besides these chisel or scalpriform teeth, there are several which are smaller, designed to give you a hold of the scalp. To me, however, these smaller teeth appear to be unnecessary, for if you have a good hold of the bone, the hold of the scalp, not of much importance, will also be secure. The three large chisel teeth constitute, in my opinion, the great excellence of Holmes's forceps.

There is yet a third instrument, generally used on the Continent, and in this country too, for the extraction of the head after perforation, and which, notwithstanding the contrivance of the craniotomy forceps, cannot, perhaps, be rejected from practice altogether, I mean the crotchet. This instrument, of curved shank, furnished with a large handle, and a hooked extremity, broad and bluntly pointed, is designed to be employed as a blunt hook externally, or within the head, in the way I shall presently explain.

Nor must I omit to mention, while treating of these instruments, another implement, not frequently required, however; the blunt hook, as it is called, now lying on the table before you. Of this instrument I have to remark, that its shank ought to be strong, its handle large, its shorter arm not longer than necessary, to give a secure hold of the axilla and arm, or any other part on which it may be applied. Bluntness is another desirable quality, whence its name; a point is useless, and therefore to be condemned.

Our remarks on the different instruments of embryotomy concluded, we will now, if you please, proceed to consider the operation itself, dividing it for the convenience of observation, into two varieties, that, I mean, in which the want of room is inconsiderable, and that variety in which we have to act upon a pelvis contracted and distorted in high degree; and first of craniotomy, in those cases in which the contraction of the pelvis is less considerable.

If the contraction of the pelvis be slight, and craniotomy be required, those who are in the habit of using the long forceps will probably have first made trial of this powerful instrument before they have resource to the destruction of the child; and, if it so happen that the long forceps are still applied to the head at a time when craniotomy is proposed, it will be better still to leave the instrument on the cranium, as its operation may afterwards tend to facilitate both the operation itself and the subsequent abstraction of the fœtus. In such cases, I would recommend you to close the blades of the forceps as forcibly as may be, so as to torpify the feelings by producing a sort of coma, the handles of the forceps being afterwards tied very firmly. This done, in commencing the operation, you take the

perforator in the right hand, and pass two or three fingers of the left hand up to the sagittal suture, feeling the suture, if possible, and in ordinary cases it may be readily felt. Well, then, conducting the instrument along the fingers, at length you reach the sagittal suture, great care being taken not to touch any other part, and by a semi-rotatory motion you very readily enter the cavity of the cranium. The cranium once entered, without the smallest delay, for the sooner the operation is accomplished the better, lay hold of the two handles of the instrument, and draw them apart from each other, so as to enlarge the laceration, a free opening facilitating the operation greatly. In order to prevent the instrument from escaping when the aperture is dilated, you ought to be very careful, on entering the cranium, to press the blades onward to the *shoulders* of the instrument, so as to bring these shoulders into contact with the scalp and cranial bones, when there will be no danger of its becoming displaced. In general (I believe) one laceration will lay the head open to a sufficient extent; if, however, you are not satisfied with the size of the aperture, you may introduce the instrument a second time, at some little distance from the first opening; and in the same way as before, enlarging by dilatation, you may lay the second opening into the first, forming what is denominated the *crucial laceration*. The great object which you seek here is a free opening into the cranium, and, in using the perforator, of this object you should never be forgetful. The head, then, being laid open in this manner with all practicable promptitude, carry your instrument into the brain, and demolish its structure completely, so that if, unhappily, there be any life remaining in the child, all feeling may be destroyed at once. Let the demolition be complete—let the brain be converted into a perfect pulp. Feel what reluctance you may before you begin this terrible operation—the more the better—but when you have once begun proceed promptly, without flinching—it is too late to look back. In demolishing the brain, it is desirable that you should break up the basis as early as practicable, for this part, I suspect, is more immediately connected with vitality. Cases have happened in which the cranium has been opened, and part of its contents have been removed, the child coming into the world alive, to look, as it were, into the face of the operator, and reproach him with his cruel ignorance, or negligence. The very image of these horrors is enough to make the blood curdle. Never lay the head open, unless there be an absolute need for it; but when you do, when you must craniotomise, let all your operations be effectually performed.

When in this manner you have laid open the head and pulpified the brain, it next becomes your duty to abstract the fœtus. This you may sometimes accomplish with the long forceps; the instrument, however, being very liable to become displaced in consequence of a collapse of the bones, and this more especially if the resistance be considerable. If, however, the difficulty be small, the fœtal head may be extracted in this manner without much difficulty; but if the long forceps lose their place, the head not descending, you must then have recourse to the craniotomic forceps already described.

Before you introduce this instrument, I would have you ascertain with care what is the precise obstacle that precludes the descent of the head. Generally there is, in these cases, a small distortion of the pelvis; let this distortion, then, be clearly detected; commonly it lies near the symphysis pubis, or the acetabulum. Frequently, however, there is a mere want of room from before backwards, the symphysis pubis approaching the back of the pelvis, no distortion accompanying. Well, having ascertained the difficulty, slide up the first two fingers of the left hand; and, of these two fingers, place one within the cavity of the cranium and the other on the outside; and then adjusting the instrument with those two fingers, you lay one blade within the head, and the other externally, so as to get the cranial bones between the blades. Before closing the instrument examine very carefully, for you should not proceed with haste here, and satisfy yourselves that no portion of the mother is included between the blades. You had better ask the woman if you occasion pain, for in these easier cases you will give but little uneasiness if you operate neatly; the absence of pain being a further evidence that you are not including any of the softer parts. Satisfied of this, you then close the blades very firmly, piercing the bones with the dentiform processes of the instrument, so as to render the hold secure. This step of the operation effected, you then draw down, co-operating during the pains, if there be any, as these will be found of powerful co-operation. In drawing, too, it is desirable that the tending of the bearing should lie in a line stretching from the umbilicus to the point of the coccyx and the perineum, (great care being taken not to injure this part,) for, when you are bringing the head through the brim, this line may be considered, practically, as representing the axis of the upper part of the pelvis, and you must direct your efforts accordingly. The ordinary craniotomy forceps will frequently slip away; I should, therefore, recommend you to use those improved by Mr. Holmes; even the best contrived instrument may slip,

bringing along with it the portion of bone to which it is fixed; a grave accident, because the edges and points of this piece of bone, if you are off your guard, may lacerate the passage. When, therefore, you are drawing with the craniotomy forceps, I would further recommend you to lay the fingers of the left hand—all the four—in the vagina, in apposition with the instrument, so that, should the forceps slip, your hand alone may suffer, the woman being protected. For the sake of the patient, and for the sake of your own hand also, I would advise you to abstract with caution, always prompt and in readiness to stop short in your effort should the instrument, or bones, seem disposed to give way. But, to proceed.

You will now and then find the head lying so high in the pelvis, that it is no easy task to apply the instrument in any way over the bones; or if you do obtain a hold, the hold is marginal and imperfect, and the forceps are apt to slip away. Now your better practice here, is to have two pair of forceps, and this number I generally carry with me; and applying your first pair somewhat insecurely, you may still draw the head down a part of the way, though you may not be able to extract it altogether. Having accomplished this, you may then take the second pair of forceps, and drawing the bones down with the first instrument you may bring the bones thoroughly within the gripe of the second pair, obtaining, in this manner, a firmer hold, which may enable you to act with power and effect. When the second pair of forceps has been applied, the first may be taken away.

In using the craniotomic forceps, all these minute points are well worth your attention: get a secure hold of the head with the instrument, and guard against its detachment by slipping; be prepared for the escape of the instrument, whether alone, or with a portion of the bones; draw down during the pains, in order that you may have the full advantage of the co-operation of the uterus; and, above all, take care when you apply the instrument, that you include the parts of the cranium only, and not a part of the mother also—a nicety not always unattended with difficulty, inasmuch as it is not always easy to distinguish what parts are of the child, and what are of the mother, more especially when the head lies high up.

The craniotomy forceps failing, you may endeavour to abstract the head with another instrument of no small power; and this other instrument is the *crotchet*, pretty generally known to accoucheurs. Now this instrument, the crotchet, may be applied as formerly demonstrated, either externally or internally; and the latter being the safer, is, on the whole, the better mode. I cannot designate, or mark out to you, any one particular part of the head, as a bearing point, on which the instrument may be placed; but I may observe, that passing it into the cranial aperture with the right hand, and guiding it with the left, you may move it about till it fastens on some part either of the basis cranii, or of those bones which form the other parts of the receptacle for the brain. When you have, in this manner, secured a hold with your crotchet, of course there is always a danger, lest the instrument should slip away either alone, or with part of the bones, and therefore you are to pass your fingers into the vagina before you draw, placing the hand so as receive the point of the instrument if it slip, being continually upon your guard against its slipping, and careful to stop promptly, when you find it disposed to give way. As in using the craniotomy forceps, so here in drawing, let the tendency of your effort be in the axis of the pelvis; ascertain what is the difficulty, if possible, and if there be any uterine pains, take advantage of their co-operation.

Further. In cases where the crotchet does not succeed in withdrawing the bones, there is yet a third expedient to be adopted; and that is, the abstraction of the cranium with the fingers, by means of the scalp and bones. If, as some are, you chance to be strong in the fingers, lay hold of the scalp or skin, which you may find hanging through the pelvis, and by this exert your extractive force. When thus drawn, the scalp, which is sometimes pretty firm, may have the effect of bringing all the bones together; and thus getting them all included within a small compass, you draw down with better success. I have seen an operator succeed in this way, where the craniotomy forceps had been previously tried with little avail. By one or other of these means, then, by the forceps or the crotchet, or the immediate action of the fingers; and especially where there is not much contraction of the pelvis, the head may generally be obstructed, and this frequently with little difficulty. Of these means, the fingers are the safest; and next to these, the forceps; the crotchet is powerful, but not without its dangers.

In these cases of slighter contraction of the pelvis, I would advise you, as your general practice, always to begin the extraction directly after you have laid open the head, and thoroughly pulpified the brain. Sometimes, however, you will find, on trial of all these modes of abstraction, that still the head will not descend; now what is to be done here? Bleed your patient, if in a state of irritation, according to her strength, to the amount of ten or sixteen ounces; give her from thirty to sixty drops, not minims, of the tincture of opium, and

let her first repose a little, afterwards taking her pains for a few hours; and, at the end of that time, you may find the head much lower in the pelvis, and, therefore, to be more easily brought away. You are not to despair, in this case, as if the delivery were impracticable. Violence, remember, has no place in scientific midwifery; if you cannot succeed with gentle efforts, wait to see what nature may accomplish. You may the rather wait for the operations of our common preceptress and auxiliary here; because, when the head has been opened, and the brain has been pulpified and discharged, and the bones are become collapsed; in the general, a heavy and dangerous pressure on the softer parts of the mother will cease, and delay, therefore, is not likely to give rise to their further contusion and mortification.

After the cranium has passed the pelvis with difficulty, we sometimes meet with no small obstruction to the passage of the shoulders, more especially if the pelvic bones be more distorted and contracted than ordinary, or if the shoulders be unusually broad. Now this difficulty may be surmounted occasionally, by first laying hold of the remains of the head, and drawing down the shoulders as low as may be, and then, by the action of the fingers, abstracting the arms, a fracture of which is of small importance, as from the previous craniotomy, the child is utterly dead; and thus, in a manner, the arms come through the outlet of the pelvis before the shoulders descend, the difficulty, from the great size of the shoulders, being overcome. If, however, you cannot succeed in an operation of this kind, then you may take the *blunt hook* here laid on the table before you, (an instrument not often required, though sometimes needful,) and grasping the handle in the right hand, while, with the left, you direct it into the axilla, you then, by means of this instrument, draw down the one axilla; afterwards in like manner, fixing it upon the other, and drawing this away, considerable effort being also sometimes required for this purpose. Should you, however, fail with the blunt hook, the only further effective expedient with which I am acquainted, is the detachment of the arm from the trunk, or the evacuation of the contents of the chest, the blunt hook, or a large perforator, being respectively the instrument best adapted to these operations. In dexterous midwifery, however, it rarely happens that measures of this kind are really required.

When talking of craniotomy, you will hear some practitioners speak of the abstraction of the brain, and for this purpose a sort of scoop has been contrived, an instrument, however, which I have not hitherto mentioned. The truth is, that if you follow the two rules before prescribed—in other words, if you are careful first to make the cranial opening capacious—and, secondly, to pulpify the brain completely, by the craniotomy forceps or crotchet, (for either of these instruments, the crotchet more especially, may be employed for the purpose,) the brain will, of itself, become discharged at the aperture, and the scoop may be rejected. It is the great glory of British midwifery, that it is, on the whole, simple; and, in general, in obstetrics, the simpler our modes of procedure, the better.

Thus much then respecting that variety of craniotomy, which is performed in ordinary cases, where there is only a slighter degree of contraction at the brim. All the craniotomic cases, however, be it remembered, are not of this kind. In consultation practice, more especially, you will now and then be called upon to operate, where the pelvis is contracted in a very high degree; so that when the head is laid open, the abstraction may still be attended with no small difficulties. Now operating in these cases, in which the pelvis is contracted and distorted in the higher degrees, you must proceed on the general principles already prescribed, only with some little modification. If it is obvious, as it generally will be in those cases, that you must lay open the head at last, I suppose it will be agreed on all hands, that the operation should be early performed, in order that you yourself may be fresh and unexhausted; in order, also, that your patient may not be exhausted, or otherwise injured, before you begin to operate, so as to be worn out with the unavailing efforts of delivery.

Again, when it is clear you are to lay open the head, you should be careful to open the head very fully, and to pulpify the brain very completely. This is necessary even in ordinary cases, but more especially in those now under consideration, where, unless you have evidently opened the head and fully pulpified the brain, you will not have that complete collapse of the bones, so essential to a ready delivery, for parts of the brain will remain in the cavity of the cranium, and room must, of consequence, be lost. The brain then pulpified thoroughly, and the opening into the cranium being made as capacious as may be, you may then proceed directly to the abstraction of the head, taking advantage of pains if there be any. Should you however be unsuccessful in these attempts, then wait for ten or twenty hours if no dangerous symptoms forbid, and under the efforts of the uterus, the remains of the head may be pushed into the inferior parts of the pelvis, more within reach of your extracting instrument.

In all cases, but more especially if there be unusual difficulty, when you are bringing

away the head, the position in which you place this part is of no small importance; and happily it is by no means difficult, but rather easy to place it in the position most convenient for transmission.

I here exhibit to you the basis of the cranium with its facial bones, the other bones being collapsed in consequence of the abstraction of the brain. To this condition the head is reduced when the cranium is laid open, and its contents are taken away. Now, in a case of this kind, in which the cranial texture is completely destroyed, you may bring down the basis of the cranium parallel with the plane of the brim of the pelvis, in the position which I now demonstrate; but you may observe here, that, in this position, the remains of the head, though small in bulk, still occupy much space in the pelvis. It seems, therefore, that if you bring down the basis of the scull parallel with the plane of the brim of the pelvis, advantage is lost; a position of the head more favourable, and very important it is that this should be recollected at the bed-side, is that which I now show you. Place the basis of the scull parallel with the posterior surface of the symphysis pubis, and then, as you may perceive, much less room will be occupied by it. Further, when you place the basis of the scull in this manner, parallel with the symphysis pubis, it is not altogether a matter of indifference which part you draw down, as the most depending, whether the face or the ear, or the occiput of the child, all of which may be brought down into the most dependent position, the basis of the cranium still, as you perceive, retaining its parallelism with the symphysis pubis. If, for example, you draw down the face as the most depending part, you then, of course, have a simultaneous descent of the neck and occiput; observe the apparatus; but if the occiput is the part the most dependent, you will then have a combined descent of the face and neck forming together a mass of no inconsiderable bulk. The descent of the ear produces a sort of intermediate case, into the consideration of which it is unnecessary to enter.

Well, then, it is obvious from these demonstrations, that if the neck and face of the child descend together, the mass transmitted will be larger than that produced by simultaneous descent of the face and occiput, and from all these considerations issues the following rule: when the cranium has been opened, and the brain has been removed, let the basis be laid against the posterior surface of the symphysis, the head being brought down under a presentation of the face, for, in this position, the remains of the cranium will occupy the smallest space in their descent. On the pelvis exhibited, we will illustrate the advantages or evils of the different modes of descent. In difficult cases, you may facilitate the descent, by separately detaching the bones, as much as may be, before you bring the head away; and if you have been waiting some ten or twelve hours after the operation of craniotomy, you may find the parts softened a little by putrescence, and their connexions loosened, so that a detachment may be easily effected, and with the help of the forceps the bones may be very easily abstracted. Care must be taken not to injure the softer parts, when these bones are taken out.

Such then are the nicer points of this dreadful operation; few, indeed, but of great importance. Though craniotomy must be avoided if possible, yet, if early in the labour, it is perfectly evident that you must open the head; the sooner the operation is performed, the better. After the cranium has been opened, and the brain has been pulpified, if the head do not come away easily, wait for a few hours—ten or twelve for example; then resuming your operations, place the basis of the scull parallel with the symphysis pubis, placing the face below so as to bring forth the head under a facial presentation; and then, if you can get away the bones separately, remove carefully as many of them as possible; for, in doing this, you not only reduce the bulk of the head, but facilitate greatly the escape of the pulpified brain.

Of the signs which indicate the need of Craniotomy.

If it be necessary, with caution, to decide in what cases you are to have recourse to the forceps or lever, it is still more necessary to decide with caution, what are the cases in which you may be justified in having recourse to the perforator; and I advise you always duly to investigate the point before you come to your determination, so that, upon reflecting afterwards, you may feel perfectly free from compunction and self-reproach.

By some, perhaps, it might be contended, that we are never justified in having recourse to craniotomy, unless the fœtus be already dead, but this opinion is, I conceive, erroneous. With the dogmas of the divine, it is not in my province to interfere, and I am glad of it; without, therefore, babbling about theology and syringes, I may be permitted to remark, that in British midwifery, the life, nay, the preservation of the patient, from the graver lesions of her person, is to be looked upon as paramount to every consideration relating to the fœtus; and when these require the sacrifice, craniotomy becomes justifiable. Before this operation is adopted, however, it must be admitted on all hands, that an overpower-

ing and peremptory necessity, grounded on these conditions, should be clearly established; for I conceive, before the tribunal of reason, this alone can clear the operation from partaking of the nature of murder; and we will, therefore, if you please, proceed to the consideration of those indications by which this necessity is supposed to be demonstrated.

By some, perhaps, it may be contended, that if we have made trial of the forceps or lever, provided we have been unable, with these instruments, to abstract the head, we ought then, without delay, to have recourse to the perforator. To this principle, however, I can by no means accede, for if the accoucheur be prompt, in the administration of the embryocopastic instruments, he may sometimes find himself unable to abstract the head in the morning, although, in the evening, by means of the same instruments, a living fœtus may be brought away—a fact, of which I have myself been an ocular witness in more than one instance. It is clear, therefore, when the tractor or forceps fail you, that the perforator should be had recourse to, provided immediate delivery be necessary.

You may sometimes hear it observed, that the perforator should be used, when the pelvis is contracted in a high degree, and that you ought not to use it, if the apertures are of full size; nor is the rule to be altogether neglected. If the pelvis be so contracted, that delivery, without the perforator, is clearly impracticable, then the sooner you employ the instrument the better; but unless the case be extreme, so that the need of the perforator is obvious beyond all doubt, to use the perforator, merely because there is a want of room among the bones, would be a most criminal rashness. The truth is, that in those cases in which the pelvis is contracted in slighter degree only, you can seldom safely decide respecting the use of the perforator, from the mere measurement of the pelvis; first, because unless much exercised in these inquiries, you may err in the measure; and, secondly, because if the head be small and soft, and the womb be active, the fœtus may come away unopened, notwithstanding the deficiency of room. On the whole, therefore, although I would not have you neglect to examine the capacity of the pelvis, yet, unless the contraction be extreme, I would recommend you not to rely on this measurement, in deciding whether you ought or not to have recourse to the perforator. In his work upon midwifery, Capuron relates two cases, in one of which the pelvis measured only three inches between the front and back, in the other, not more than two inches and a half, the full capacity in a well formed pelvis being of four inches. Both these women, however, as Capuron relates the story, became the mothers of living children; and, from the whole account, we may draw this useful information—I mean, that we must never rashly condemn the fœtus, merely because the pelvis of the mother is contracted; the fact indeed ought to influence our judgment, but certainly ought not alone to determine it.

Further, you are not justified in laying open the head merely because, in previous labours, the operation has been performed, and that too repeatedly. Suppose, for example, five or six fœtuses have all been destroyed in previous labours, the pelvis being confessedly narrow. A fact of this kind constitutes, no doubt, a presumptive evidence, that the operation may be again necessary, but the proof is not decisive; nor are you, therefore, justified in making use of the perforator, unless some stronger reason can be given. Various circumstances, in any given delivery afterwards, may facilitate parturition. The labour may be premature, or though of full age, the fœtus may be softer, or much smaller than ordinary, and it may yield of consequence to the forceps or tractor, or even to the unassisted efforts of the uterus; so that, on all these accounts, it would be highly criminal to perforate, merely because the operation had been performed repeatedly on the same woman before.

Some practitioners, with laudable humanity, have maintained, that perforation ought not to be performed unless we have proof that the fœtus is dead in utero; and I do believe, that in many instances, it is not necessary to lay the head open till the fœtus have been subjected to so much compression from the action of the uterus that its vitality is become extinct. Unhappily, however, even if we accede to this rule, it will not be found of easy application, as we are not always able to decide, with absolute certainty, whether the child is dead or not. From the symptoms which I shall presently state, we may, indeed, sometimes ascertain the fact with a high degree of probability; but it often happens, that the child is dead without our knowledge, and frequently, when the fœtus has been pronounced to be dead, it manifests the signs of vigorous life, as soon as it has quitted the vagina. Should we, therefore, grant to the speculator, that the indication for the use of the perforator may be taken from the death of the child, we must still maintain that, in practice, the rule is exceedingly defective, inasmuch as it necessarily partakes of all that uncertainty which belongs to those symptoms by which the death of the fœtus is supposed to be indicated. Not, however, to weary you with the critical enumerations of indications for the use of the perforator, of which I do not

approve, I will now lay before you those which I employ in my own practice.

Before the perforator is used, I endeavour to be fully satisfied that the security of the life or person of the patient peremptorily requires the delivery; and I consider that the security of the patient demands delivery, with that degree of certainty which makes it our duty to operate, provided the head have made little or no advance, although the woman have been in active labour for six-and-thirty or eight-and-forty hours after the discharge of the waters; or provided, moreover, however short the labour, the symptoms of danger or damage, enumerated in a former lecture, and to be relieved effectually by delivery only, are beginning to make their appearance.

Again: satisfied that the perforator is necessary, I endeavour further to ascertain that the delivery is not to be accomplished either by the embryospastic instruments or the Cæsarian incisions. If the delivery must at last be effected by the Cæsarian incisions, it must be admitted, on all hands, that craniotomy is unjustifiable, and I shall endeavour, hereafter, to lay down the principles by which we may determine this point. If the delivery may be safely accomplished without our embryotomic operations, by the mere use of the embryospastic instruments—the tractor, I mean, or forceps—then of course, although the fœtus in these difficulties is frequently still-born after all, to craniotomise would be unjustifiable. The safety and practicability of delivery by the forceps or the tractor, in any given case, must depend, not only on the conditions of the delivery, but the dexterity of the operator; and, perhaps, the only certain method of determination in dubious cases, must be taken from our making the essay—gently, dexterously, resolutely, yet cautiously, and with great care, lest we should lacerate or contuse. Well, then, suppose delivery by the Cæsarian incisions to be unnecessary, and by the embryospastic instruments impracticable—suppose, moreover, that the safety of the life, or person of the patient, demand immediate delivery with that degree of certainty on which, in surgery, it is reasonable to act. Under these conditions, it seems to me, that we have made out a clear need for the perforator, and however revolting the operation may be, craniotomy becomes justifiable. Before you open the head, have a second opinion—this is a good check upon temerity; the former need of the operation, the contraction of the brim of the pelvis, and the death of the fœtus, may all be allowed to exert some influence over your decision; but, be it remembered, that from these considerations alone, your determination must not in general be taken.

LECTURES ON CHEMISTRY,

BY

PROFESSOR BRANDE.

Delivered at the Royal Institution of Great Britain.

Lecture XXXIX.

On Arsenic, Molybdenum, Chrome, Tungsten, Columbium, and Nickel.

It happens, Gentlemen, with *arsenic*, as with most other poisons when taken into the stomach, that it occasions vomiting, and it is no uncommon thing to find persons killed by arsenic, and yet be unable to detect the smallest portion of it after death in the stomach or bowels; this is continually happening; and as you cannot, from the appearances after death, or from the symptoms, certainly determine the nature of the poison used, it becomes requisite to be very careful to collect these portions of matter thrown off by the stomach, in which the arsenic is supposed to be contained. You find that pain, and a sensation of burning throughout the alimentary canal, are complained of by persons who have taken arsenic; but these, although the leading symptoms, would not enable you to determine whether arsenic had been taken or not. This burning sensation throughout the stomach and bowels, is followed by vomiting and purging, and generally there is a quantity of bloody mucus thrown off from the stomach, indicating the degree of irritation going on. Drinks of all kinds are rejected by the stomach, and after a time the person suffers from fainting fits, great thirst, and intense heat of the skin; the pulse becomes small and irregular, and there are violent palpitations and cramps in different parts of the body, especially in the extremities; cold sweats supervene, and an eruption of red and purple spots upon the skin precedes the fatal termination of the case. Delirium is not an usual consequence of poisoning by arsenic, and serves as one of the distinctions from cases of poisoning by opium and other narcotic poisons. The mind is usually clear in cases where arsenic has been taken, almost to the last. After death, all that is found is an inflammatory state of the stomach, red patches of inflammation being found upon its inner or mucous coat, and if you pass your finger over them, and rub off the mucus and coagulable lymph effused, you will find the parts beneath intensely red, usually terminating abruptly at a given point; it also generally happens, I believe, that the blood in the large vessels is found in a fluid state, not coagulated, as it commonly is, after death.

When examining a body to determine if arsenic has been taken, upon looking into the stomach and intestines, you find occasionally a small quantity of a white substance, which you should collect very carefully and examine, and this will generally prove to be arsenic; but, as I have mentioned to you, unless death should occur at an early period, the poison will be vomited off, and there is no chance of finding it either in the stomach or bowels, although the mischief done may have been sufficient to kill the patient. Under these circumstances, medical men and chemists are in the habit of instituting a great variety of accurate, and delicate experiments, as they conceive them to be, upon the contents of the stomach and bowels, and if they get a yellow precipitate with the nitrate of silver and a green precipitate with the sulphate of copper, they immediately come to the conclusion that arsenic is present in the secretions they have examined. But you may be easily deceived in matters of this kind, and unless you get the arsenic and exhibit it by the most unequivocal of all tests, its reduction to the metallic state, you never ought to make up your minds as to its having been exhibited. In a case of poisoning in Cornwall, it was shown that a yellow fluid, such as the infusion of onions, will cause copper to be precipitated of a green colour, which an inexperienced eye might mistake for the green precipitate of the arsenite of copper, and hence lead to the decision that the person had been destroyed by arsenic. Some of the phosphoric salts afford precipitates of a yellow colour, and mistakes might be made in this way. Supposing that you have collected a quantity of matter, which you suspect to contain arsenic, you will proceed in the way directed in our last lecture; you take a portion of it, as you generally have but little to operate on, you put this into a watch glass, and you heat it with a little solution of potash; supposing that you had about one-tenth of a grain of white arsenic, a drop of the solution of potash would be sufficient, and you drop into this a drop or two of the solution of the sulphate of copper, and you will have a green precipitate if there be arsenic present. Another portion of the suspected fluid may be digested with a little ammonia, which will dissolve it, and then add a little nitric acid, which neutralises the ammonia, taking care not to add excess of acid, then dip or drop into the solution a little nitrate of silver, and observe the yellow precipitate which is formed. Take a third portion and mix it with a little *black flux*;* put it into the bottom of a small glass tube, and heat it carefully; if you get a steel-grey sublimate, you may be certain, in conjunction with the other tests, that you have arsenic before you; but in order to make the matter still more sure, cut off the bottom of the tube with a file, and then heat it, holding the tube at about an angle of 45°, in the flame of a spirit lamp; you cause a current of air to pass through the tube, and if you perceive the odour of garlic, you may be sure it is arsenic. If you choose to be more punctilious, hold a piece of copper over the tube, and you will soon have a white coating of arsenic upon the copper. If you can thus proceed with your tests, and ultimately obtain a sublimation of metallic arsenic, there can be no doubt of the nature of the poison; but if you fail to get this, you should place no manner of confidence in the precipitates; and it would be best to collect the precipitates, to heat them with black flux, and you will get the smell of garlic and metallic arsenic, that is to say, supposing you have an opportunity of collecting the precipitate; but in this way you may imagine, that you can only get the arsenic in very small quantity, and therefore you must depend upon the experiment I have mentioned.

I have here precipitated the copper from its solution by potash only, to show you the contrast between the appearance of this green colour produced and the green of the arsenite of copper, and the contrast is very evident; but, at the same time, you must recollect, that if you mix a yellow fluid with the green obtained by the potash, you may get a green similar to the arsenite, and therefore it has been said, that there may be bile in the stomach or in the intestines, and that you may thus have a green similar to the arsenical green, and certainly you may; but if you heat this, and reduce it, you do not get the steel-grey sublimate, which shows the presence of arsenic. For my own part, I never feel satisfied when I read long accounts of boiling the stomach and intestines in water, and of testing these solutions, and of the appearances which they give rise to, and so on, because all this is a very complex affair, and must be done in a variety of vessels, and it generally happens, that those who proceed in this way are not the most expert experimenters. In short, we ought to rest satisfied with nothing short of the most decided and irrefragable proof, which is the production of the metallic arsenic.

Now, arsenic is what is called an acidi-

* Best prepared by deflagrating in a crucible a mixture of one part of nitre, and two of powdered tartar; it remains in fusion at a red heat, and thus allows the particles of metal to coalesce into a button.

fiable metal; it does not form any distinct class of salts with other acids: we have no nitrate or sulphate of arsenic; but you may acidify the metal by various means, and then the acid thus formed enters into combination with numerous bases, forming arseniates and arsenites. Molybdenum, chromium, tungsten, and columbium are also acidifiable metals; you have no distinct salts formed with them and other acids, but they enter into various combinations with different bases, and form compounds of some interest and importance.

First, of *molybdenum*; this metal was discovered by Scheele, existing native in two or three combinations, but principally in two; the *molybdate of lead*, called the yellow ore of molybdenum, and the *sulphuret of molybdenum*. Now, you may obtain the *molybdic acid* from either of these ores. The molybdenum itself is a greyish metal, and is very difficult to fuse. If you wish to obtain a molybdate of lead, you mix together a molybdate of potash and nitrate of lead, and you have almost a pure molybdate of lead. If you treat the sulphuret of molybdenum with nitric acid, it abstracts oxygen from the acid, and you have a *molybdous* acid formed, and, if you carry the operation still further, you obtain the molybdic acid. As regards its combinations with oxygen, it appears capable of uniting with three distinct quantities, so as to form the molybdic and molybdous acids, and the oxide of molybdenum. It is represented by the number 48; the sulphuret of molybdenum is composed of 48 metal and 16 sulphur, giving 64 as its equivalent; and the other compounds have never been applied to any use.

Chrome, or *chromium*, is also an acidifiable metal; it is obtained in the metallic state by intensely heating the oxide of chrome with charcoal; it is a grey brittle metal, but of no particular use, or possessing any interest in this state. If it be exposed to the action of heat and air, it is gradually converted into a deep green powder, easily soluble in acids, which is the oxide of chromium. The properties of chrome have been described by Vauquelin, and he gives it the name of chromic, or colouring metal. Here is a specimen of the incrustation of the oxide upon a granite rock, occurring native in France, and this preparation is now produced artificially for some kinds of paints, especially for china and enamel painting. It is a permanent colour, and useful in giving various tints of green in combination with yellow, thus producing colours not to be derived from any other sources. The solution of this oxide in the acid is of a deep green colour. Here is the chloride of chrome, also green; the phosphate and carbonate of chrome, also of the same colour; here you see a solution of the nitrate and sulphate of chrome, and some of these solutions exhibit curious phenomena when received in transmitted or reflected light, appearing of a deep purple in transmitted light, and of a green colour in reflected; and it may, perhaps, be worthy of remark, that this green oxide *of* chrome is the colouring matter of the emerald; this fact was also discovered by Vauquelin. *Chromic acid* combines with the oxide of iron, and produces a black chromate of iron, which has been found native; also with lead, forming a chromate of lead, which is of a fine red colour, and has been found native in Siberia. If you take these and fuse them with nitre, you find, upon the fused mass, a fine yellow liquor, which is *chromate of potash*; and you have, in fact, a great variety of soluble chromates, formed by adding the chromate of potash to certain soluble saline compounds, of great variety and importance. These salts are, at present, prepared on a large scale for the calico printers, as mordants to cause a precipitation of the various colouring matters upon the fibrin of the calico. Upon the table there is a number of chromates, but only one of any importance to the chemist, which is, the chromate of potash. The insoluble metallic chromates may be formed in the same way as the soluble chromates, namely, by adding the chromate of potash to their saline solutions, and the colour of the precipitate often enables us to judge of the nature of the metal present, and we sometimes avail ourselves of the chromate of potash as a test for the metals. From a solution of lead is obtained a yellow precipitate; from silver, a deep crimson, becoming black on exposure to air; from copper, a dingy green; from iron, brown; and so on. These instances will be sufficient to show you the manner of forming the insoluble chromates, and the great variety of colours producible by this metal. It is found in great quantity in America, and latterly in France and Germany, and as I before mentioned, it may be obtained by deflagrating the native chromates of lead and iron with nitre.

Tungsten, *wolfram*, or *scheelium*, is a metal of no importance or interest whatever; it is found in native combination with two minerals, crystallised in small green crystals, with the oxide of tin, and in combination with iron and manganese in the massive state. Tungsten is difficult of reduction; it is an acidifiable metal, and enters into combination with certain bases, forming tungstates of iron, manganese, lime, potash, and so on; but these are possessed of no interest.

Columbium was discovered by Mr. Hatchett, in a mineral substance brought from America, and he called it columbium from its origin. Afterwards Ekeberg, in Sweden,

discovered *tantalum*, or tantalite, which he so named, from the trouble he had in discovering its combination; but Dr. Wollaston showed, that columbium and tantalum were one and the same metal, and therefore the original name of columbium has been retained. Here is an oxide of columbium, and here a gallate, but it is very difficultly reduceable, and I have nothing further to remark, than the curious property of its protoxide, to which the infusion of galls gives a brown colour. The oxide is soluble in tartaric, citric and oxalic acids. The oxide is a very intractable substance when dry, and is insoluble in any state in the stronger mineral acids; whereas, in the vegetable acids, it dissolves very readily when recently precipitated.

Nickel.—Now nickel is a metal which has attracted great attention. In the first place, as having given rise to some beautifully coloured salts, and next as existing in those singular masses, which occasionally fall from above; whence they come nobody knows, but they have been called meteoric stones.

Nickel occurs native in a variety of combinations, but its arsenical ore is most common. After it has been reduced and fused, it is sold, in general, under the name of *speis* or cured nickel, which is a very complex compound, containing arsenic, iron, sulphur, copper, cobalt, and other substances; but the procedure for obtaining the pure metal, as far as my experience goes, is a very simple process. It is sufficient to break it down, and heat it in a muffle or reverberatory furnace; in this way you get rid of the arsenic and sulphur; and if you deflagrate the remainder with excess of nitre, you further get rid of arsenic; having done this, you wash the residue, which is an impure oxide of nickel, and digest it in nitric acid; and if you evaporate and redissolve this three or four times, you get a pure crop of crystals of nitrate of nickel; you have only to precipitate a solution of these by any of the alkalies, and you get oxide of nickel, which, heated intensely with a proper flux, as charcoal, gives you the metal nickel. Here is a button of the pure metal, which I obtained in this way; it is of a whitish colour, and magnetic, acting almost as intensely as iron upon the needle.

The salts of nickel, in solution, are commonly of a green colour; there are several of these upon the table, which you can examine after lecture. If to this solution of the sulphate of nickel, you add an alkali, it throws down a pale green precipitate, which is a *hydrated oxide* of nickel; if you collect this and dry it, it remains of a green colour, but it becomes afterwards of a resinous appearance, and brittle. The number representing nickel is 30, and its various salts are constituted of the protoxide 38, and the different acids. Some of the precipitates of nickel have been proposed to be used as paints, but none of them are very durable or permanent. The characters of the compounds, which the oxide forms with the acids, it is not necessary to stop to show you, as they are very like those of copper. If you add to a solution of nickel a small quantity of ammonia, you throw down the hydrated oxide; but if you add the alkali in excess, you redissolve it, and a beautiful blue fluid is produced, which is a solution of the oxide of nickel and ammonia.

Before I proceed further, I will advert to the mode of separating iron from nickel, which is a step you will be required to perform, in the analysis of metallic substances. I have, in this glass, a solution of iron in muriatic acid, and, in another, a solution of nickel in muriatic acid. Suppose I have an alloy of nickel and iron, and I digest it in muriatic acid, I have the counterpart of these solutions; if I add ammonia to the solution, I shall precipitate the iron entirely; it will fall down, and the nickel will be retained in solution. On the other hand the nickel will, as this experiment shows, be redissolved in the excess of ammonia, whilst the oxide of iron is insoluble; and now, if I pour it upon a filter, the oxide of iron will remain upon the filter, and the ammonioret of nickel will pass through.

With respect to the *tests* of nickel, one of the best is the ferrocyanate of potash, which detects the nickel, by producing a greyish cloud in any of its solutions. Here is a very dilute sulphate of nickel: the evidence of the presence of nickel is produced by a pale grey cloud, which falls down, and which is a ferrocyanate of nickel. You can have no difficulty in ascertaining, whether nickel be present or not, because you have precipitated the iron previously by the ammonia; and if the fluid remaining should contain any nickel, you will have a greyish cloud produced upon the addition of the ferrocyanate of potash.

I before mentioned to you the singular fact, that in those masses, which are occasionally seen to descend from the atmosphere, nickel is present with iron; how they are formed we do not know, although a variety of explanations have been offered.

This brings us to the metal *mercury*, which we shall enter upon in the next lecture.

FOREIGN DEPARTMENT.

ON TWO CANALS WHICH FORM A MEDIUM OF COMMUNICATION BETWEEN THE PERITONEUM AND THE CORPORA CAVERNOSA IN THE TORTOISE AND CROCODILE.

The authors of this paper (M. G. St. Hilaire and M. Martin,) after showing that a knowledge of the organisation of reptiles, and more particularly of the tortoise, furnishes a great number of valuable facts, such as may throw light on anatomy and physiology generally, state that the canal called by M. Geoffroy, sen., urethro sexual, is rather small, but very distinct in the tortoise. With respect to the cloaca, there appears a great analogy between the land tortoise and the ornithorynchus, greater even than exists between the land and sea tortoise. A detailed description then follows, of a remarkable arrangement of the sphincters of the rectum of the urethro-sexual canal, and of the cloaca. That of the cloaca is circular, and surrounds the two others, which are united, and form together a figure of 8, the orifice of the rectum being the superior, and that of the urethro-sexual canal the lower opening of the figure.

The Peritoneal Canals.—These canals commence in the cavity of the peritoneum, between the bladder and the oviduct, by rounded openings, which have no valves; they then proceed through a spongy tissue, which is a continuation of the erectile tissue of the clitoris, then on the outer side of the corpora cavernosa, and open into their cavity at a little distance from the base of the gland. In certain species, besides the principal orifice, there exist two smaller openings in the parietes of the canals, by which they also communicate with the corpora cavernosa. In the interior of these canals, no valves are to be found, but occasionally small narrow membranous folds, which admit of being easily injected. The injection passes with facility, either from the corpora cavernosa into the peritoneal canals, or from these canals into the cavernous bodies, and, lastly, from either one or the other into the erectile tissue of the clitoris. These canals are very analogous to two which have been described by M. Cuvier as existing in the ray, and which open by one extremity into the peritoneum, and by the other near the anus. There also appears some analogy between these canals and those described by M. M. Gartner and Blainville, which are found in many mammalia, keeping up a communication between the vagina and the womb.

The existence of these peritoneal canals, i. e. of the canals which, as in the crocodile, form a medium of communication between the cavity of the peritoneum and the cloaca, or the interior of the corpora cavernosa, as in the tortoise, deprives the peritoneum in reptiles, of one of the most remarkable and constant varieties of serous membranes, that of a closed or shut sac. There are still a few other exceptions than those we have already mentioned.

ON THE CAUSE OF THE DIFFERENCE IN THE STRENGTH OF THE RIGHT AND LEFT ARMS.

M. Lecomte lately read before the Institute of France, a paper on the superiority of strength of the right over the left arm. This physician thinks the difference owing to the position of the fœtus in the womb during the latter months of pregnancy. In by far the larger number of cases, the position of the child is such, that its left shoulder, arm, and the whole of the left side, are pressed against the bones of the pelvis; from this pressure, a contraction of the blood-vessels (a kind of atrophy of the left sanguineous system) ensues. The weakness of the left side, then, arises from this congenital disposition. According to M. Lecomte, it is the right side which is the weakest, when the child is placed in the uterus in the contrary direction, which accounts for those who are left handed.

DIVISION OF THE SOFT PALATE.

At a late meeting of the Academy of Medicine, M. Roux stated, that, within the last three years, he had performed the operation for the divided palate twenty-eight times. In the five years preceeding these, he had only performed the operation twelve times, making in the whole, since he first undertook the operation, forty times. Nineteen of the cases were in the most favourable circumstances for the operation, and among these it failed only in six, the parts being left in such a condition as to allow of the operation being repeated. In the remaining twenty-one cases, there was a separation of the hard as well as that of the soft palate; in nine, the operation succeeded; in the others, considerable relief, though not a complete cure, was afforded.

EFFECT OF THE CUPPING-GLASS ON PUNCTURES MADE FOR THE INOCULATION OF COW-POX.

M. Bousquet read to the Academy of Medicine, an account of experiments which he had made to ascertain what effect the application of the cupping-glass would have on the fresh punctures made for the inoculation of the cow-pox. Dr. Barry, of London, had distinctly shown, that a cupping-glass, applied over a poisoned wound, prevented

the absorption of the poison; and M. Itard found, that the cow-pox did not make appearance after the glass had been applied over the puncture. M. B. made the experiment on twenty-six children; in seven, the cow-pox did not appear on either of the punctures, not even on those where the cupping-glass had not been applied. In the nineteen others, on the contrary, from two hundred punctures, a well formed pustule appeared on one hundred and nineteen, forty-three of which were developed and matured under the action of the glass. M. B. does not, however, conclude from these facts, that the cupping-glass exercises no effect on the absorption of the vaccine virus; he thinks, that if the glass is kept applied for twenty or thirty minutes, the development of the pustule is retarded; but, he observes, that the action is only kept up as long as the glass is applied.

A conversation followed, in which it was properly observed, that a distinction must be made between poisons and virus, for in the former, the quantity absorbed is of considerable consequence, whereas in the latter, quantity has little to do with the effects which follow.

THE VETERINARY COLLEGE.

To the Editor of THE LANCET.

SIR,—It is with considerable reluctance that I take up my pen to reply to a repetition of your calumny on Professor Coleman, which appeared in your last Number, and I am emboldened to hope you will not refuse to give insertion to this, as you have been pleased to offer the pages of THE LANCET to any reply the friends of Mr. Coleman would have to make on the observations in question; not, Sir, that I can at all boast of this honour, nor do I believe he is a friend to me more than any pupil at the College, and I am persuaded that what I have to state will at once convince you, and the enlightened subscribers of your Journal, that the article in question is altogether unfounded, and bottomed on the grossest injustice, unworthy of the enlightened and liberal ideas which THE LANCET professes to advocate.

You say, Sir, that at the meeting of the Veterinary Pupils, held on the 6th Feb., only twenty-five attended, though there were at the College nearly one hundred; and that only fifteen of the said twenty-five signed the paper alluded to. This, Sir, is altogether untrue; there were only forty-five regular attending pupils at the College, the greater part of whom were present, and thirty-nine signed the resolutions which were sent to your office, and inserted in THE LANCET of the 23d ult.; and I am sure that every pupil at the College would have attended, but the meeting was quite unexpected, and consequently its object unknown, as it only originated amongst the pupils at nine o'clock the previous night.

You have been pleased to allude to the examinations held the following night at the Professor's house; this is certainly true, and the cause must be obvious to every one, Namely, the lamented and continued illness of Mr. Coleman. Here, again, you are wrong in your assertions; for, though they were held there, the Professor was taken so ill that he could not attend the board of examiners, of which Sir A. Cooper was President; and, as a proof that the Committee was not influenced by favour, and that the pupils had nothing in view by the manly and spirited resolutions which they adopted but truth and justice, and to refute your reporter's calumnies, it turns out that one of the most active at the meeting was rejected at the examination the following night.

As to the attendance of the Professor at the stables, the resolutions of the 6th of Februry, went to state, was most valuable and regular when his health would permit, which is well known, and can be attested by every pupil for years back at the College, till his late indisposition obliged him to seek for a short time that indulgence which the most humble had a right to expect. After this, Sir, is it just or humane to haunt the bed side of a sick man, with such unfounded assertions.

Your remarks seem, also, directed against Mr. Sewell; I can only say as a pupil, I have profited much by his clinical instructions, and have always found him willing and anxious to give every information required of him.

I have been a subscriber a long time to THE LANCET, and derived much valuable information from it; but I could wish, from my heart, that that space devoted to untrue statements relative to the Veterinary College was occupied with something that would be of advantage to the profession, and I think it a pity that you should pollute your pages by being the tool of a disappointed and malicious faction: though your banners may be mingled for a time, you may rest assured they must soon stand upon adverse sides.

I am, Sir, your obedient servant,

A PUPIL.

Veterinary College, 17th March, 1827.

P.S. The resolutions of the Pupils signed respectively by thirty-nine, are at the College, and may be seen by you.

[As this letter reached us previously to the "refutation" of Messrs. Griffiths and Co., and as the author still wishes that it should be published, we have deemed it right to comply with his request.—ED.]

ON DISTORTIONS OF THE FEET AND OTHER PARTS.

BY T. SHELDRAKE, ESQ.

To the Editor of THE LANCET.

SIR,—I do not know whether you are or are not aware, that I have employed more than forty years of my life in curing malformations, distortions, and other defects in the human form, and am entitled to say, with more success than any other person. In the course of my practice, I have cured more than a thousand patients, including, perhaps, every variety of those defects that is susceptible of being cured, without any person having discovered the means by which these cures were effected. The secret was my own, and I should not have kept it so long, but in consequence of the insignificant persons who, in my time, fancied themselves to be at the head of the surgery of that day, endeavouring to force it from me, and convert it to their own purposes, compelling me to act as their servant, and for their benefit.

The consequence of the line of conduct most steadily practised by them was, that I, like the traveller in Æsop's fables, who, when Boreas blew with all his power to force his warm cloak from him, wrapped it more closely about him, and set the storm at defiance; so that my practice still remains unknown; but as I believe that all these intriguers are either passed into another state of existence, or, at least, retired from active life, and the time cannot be very distant when I must follow them; and as I think my discovery has been useful so long, and may be useful much longer, if it be placed in proper hands, I have determined to use the most effectual means that I can devise, to place it in the hands of those gentlemen who are well qualified to practise surgery, and by whom *only* this practice can be adopted with success.

It has occurred to me, that this information may be agreeable to some of your readers, and to ascertain whether it will or will not be so, I send this paper. If you insert it, I shall send others in continuation; if you do not, I have only to apologise for having troubled you with this.

I am, Sir,
Your most obedient servant,
T. SHELDRAKE.

No. 276, Regent Street.

Those distortions which have been the subjects of my attention, may be divided into two kinds; first, spinal curvature, and whatever malformations are connected with those parts of the body which are above the pelvis; and, second, whatever defects are connected with the feet, legs, and thighs. Of the first class no notice will be taken at present.

The second class may, for the purposes of this explanation, be divided into two parts, viz. such as take place before the birth of the child; and, second, of such as take place at uncertain periods during future life, and are produced from a variety of causes.

The most common of this second class, are those in which the feet turn inwards to a greater or less degree; the foot appears to be misshapen, and has acquired, in common language, the name of club foot; it has been very erroneously believed to be occasioned by malformation of bones of the foot, and, therefore, has been held to be incurable. When I come to treat at length on the cure of this defect, I shall state what the real cause is. The limits to which I am confined in the present communication, restrict me to show, that these cases may be most completely and permanently cured.

A lady, who resided in the north of England, had a son born with two distorted feet; she carried him to Edinburgh, and was told by the gentlemen she consulted there, that the defect was quite incurable; she, therefore, made up her mind to bear her misfortune with resignation; but, having accidentally heard that a child in her neighbourhood had been cured of a similar defect by me, she wrote to her brother-in-law, who was at that time a physician in London, to ascertain from me whether I could cure the child, what time it would require to effect the cure, and whether my personal attention was necessary during the whole time that the cure was going on. In consequence of what passed between Dr. —— and me, she brought the child to town, and resided for some time in her brother's house, but afterwards removed into a separate lodging of her own. The child was between two and three years old when I first saw him, and it was two years before he was quite well. Upon this subject it will be proper to say at once, that the few who, before me, condescended to suppose that such defects *might* be cured, advanced an opinion that was quite erroneous; they said, that if such things *could* be cured at all, those cures should not be attempted till the child was two, three, or four years old, because then they would have strength enough to bear the treatment that must be necessary to effect the cure. The very reverse of this is the truth: I have invariably found, that when these cases were placed in my hands, within a few days, and in many cases within a few weeks of the birth, they were generally quite well before the time that children usually walk alone, so that at or after that period, no circumstance re-

mained to show that the feet had ever been defective; but if months, or, as in this case, years were allowed to pass before I was allowed to cure them, years were necessarily employed in effecting the cure. As this fact will be made intelligible when I come to explain the treatment, I shall not pursue it further at present.

It was my practice, when these cases came under my care, to have casts taken in plaster of Paris from the feet in their original state, and other casts from time to time, as I found it necessary during the progress of the case; by following this plan, I had proofs of the progress that I made in the cure. From these casts the annexed drawings were made; the feet were equally deformed. The figure No. 1 represents the left foot as it appeared when looking at the outside of the leg; the position of the foot shows how much it was turned.

No. 2 is a view taken when looking directly at the front of the tibia; it shows the position of the foot better than the preceding figure.

No. 3 is a view of the same leg, taken when looking at the inside of the tibia; it shows the position and form of the sole of the foot.

No. 4 is a view taken when looking at the back of the leg, and shows, more intelligibly than any of the others, the state in which he stood upon his legs.

No. 5 is a front view of the same leg after it was restored to its natural shape; by comparing it with No. 2, the extent of the alteration that was produced may be understood.

No. 6 is a profile view of the inside of the leg, taken after it was restored to its natural state; by comparing it with No. 3, the alteration that was produced in the form will be clearly understood.

The great disadvantage that, in these cases, attends procrastination of the period of beginning the cure, is the great occupation of time that is necessary, afterwards, to complete the cure; I had one patient that I first saw when the child was not six weeks old. The family were of that rank whose will they supposed might be made law upon every occasion; they lived in Devonshire, and disliked to live in London; therefore, so soon as *they* thought the patient was well, but, contrary to my opinion, returned home, and after some months the patient's foot relapsed again. They returned to London, as *they believed*, till the child should be permanently restored to the use of his feet; but their patience again failed, and they returned home: this unwise conduct was repeated, so that the boy was twelve years old before he was quite well. He has since completed his education at Cambridge, and is now in the natural society of his family, a handsome well-made man, without any circumstances remaining that indicate the form in which he was born.

The case was different with respect to the patient who is now under consideration. After he was cured, he was kept in or near London, so that I had frequent opportunities of seeing him: I saw his petticoats laid aside, and replaced by the clothes which are usually worn by boys. I saw him playing in a preparatory school till he was eight years old, and no particular of the original distortion made its appearance; he was then removed into the north, and I have never seen or heard of him since.

I shall add to this another case, which will more strongly confirm the doctrines that have now been advanced upon this subject.

In 1798, a gentleman, who lived in Norwich, came to me about his son who was then between four and five years old; he was born with distorted feet. The parents being told that nothing could be done to remedy the deformity, submitted to their fate; but having seen the child of a gentleman in Yarmouth, whose son I had cured of a similar defect, they were induced to inquire if I could do any thing to assist their son. Both feet were more distorted than any that I had then seen; and as an opinion prevailed from the first that they were irremediable, no attempt had been made to assist him. Half boots were put on, and he was permitted to run about in any way that he could. This case, according to the opinions which prevailed at the time, comprised every circumstance which could render it incurable. The distortion was originally of the worst kind; it had been aggravated by the child walking upon its feet for three or four years, which, according to the same opinions, must have produced malformations in some of the bones of the feet, if they did not exist there originally; and according to another erroneous opinion, the bones were "completely ossified," the deformities therefore irremediable *then*, whatever they might have been at an earlier period of the child's existence.

All these denunciations differed from the opinions which I then entertained: but not having then cured a case so bad as this, I proposed to try what could be done in the limited time of four months, in which so much alteration was made for the better, that it was determined to continue him under my care so much longer, as it was found that he continued to improve; but as a residence in London was irksome to the family, and his mother would not suffer her son to be away from her, they returned to Norwich, and I was engaged to go almost weekly to Norwich, and do whatever was

necessary, or could be useful to the patient. This continued six years, at the end of which time, even by that laborious and disadvantageous mode of attendance, every particle of the original deformity was eradicated, and he became a healthy well-made youth, capable of making every exertion which could be made by any other person of his years. When he was of a proper age, he engaged in a banker's concern in the city, beginning, as it is usual in that business, in the station of out-door collecting clerk: his walk was to the west end of the town, and he went through that very great exertion in the same manner as any other person of his years, and nothing in his form, appearance, and action, indicated that his feet had ever been defective. I had frequent opportunities of seeing him for many years, without any alteration in his appearance; but at the present time I know not if he is still living.

When I first saw him, the forms of his feet were so like the figures which accompany this paper, that I have not thought it necessary to give any other representation of them; but they were even more rigidly fixed in their unnatural state, and therefore much more difficult to cure.

In my next, I propose to give a specimen of this defect that took place several years after the birth, and was likewise cured.

THE LANCET.

London, Saturday, May 3, 1828.

HOSPITALS are distinguishable into two great classes: the one comprising all those supported by a government, the other, all those which have been founded by benevolent individuals. Both are sometimes of a mixed description, being partly maintained by bequest, by parliamentary grant, by private subscription, and, occasionally, by these several means united; but, in such cases, priority of endowment subjects the institution to the mode of management peculiar to its origin, and, in reference to medical education, all our hospitals, in spirit, are similarly conducted. The first class prevails on the continent, and constitutes the national schools of practical medicine and surgery; the second predominates in this country, and is used for the same purposes. This difference between the directors of hospitals here and abroad, has been followed by very opposite results. The continental hospitals, under the superintendence of their respective governments, besides the relief afforded to the diseased, have been made subservient to the supplying of the state with practitioners for civil and military service. To facilitate the attainment of this object, the officers of these establishments are paid for their duties; and all pretexts for the exaction of fees from pupils are thus removed. The reverse of this system holds in this country. We have few hospitals, exclusively conducted by government, in which professional information may be acquired. Those which are so managed have followed the example of their predecessors on the subject of inquiry; in all the rest it is a matter of mere option with the governors to permit students to attend them at all; and the physicians and surgeons of these institutions being paid but nominal salaries, and invested with the almost exclusive power of regulating the conditions of a pupil's admission, a motive and a privilege exist in this arrangement for the commission of severe abuse. We are, consequently, as yet entirely destitute of what can be properly called national schools of medicine and surgery, our government having made no provision for the practical tuition of these sciences, while the institutions which might supply this deficiency, are, in some measure, beyond legislative control, and, from many causes, rendered useless as places of professional instruction. The injurious consequences of this defect in our policies are numerous. One only of them, the exorbitant fees exacted from pupils for attendance at hospitals, claims our attention at present. The evil, in fact, is precisely of that kind which might be expected from the neglect of our government, and the nature of the establishments in which it is manifested. The founders of hospitals neither intended them for medical education, nor could they well have guarded, even if they wished, against the abuses which have been committed in their conversion to this purpose. The primary object of these charitable individuals undoubtedly was the practical application of medical science to the relief of the sick poor, rather than its tuition to students. In bequeathing their property for this end, Dr. Stevens of Dublin, or Thomas Guy of London, had no notion whatever of the traffic which was to have been subsequently carried on in the wards of their respective hospitals, and could not of course have made any provision against the practice. The circumstances which have rendered this traffic practicable and profitable, did not exist in their day. There were no by-laws confining the cultivation of pathology to particular places, or the study of anatomy to particular times. Family influence had not yet resolved itself into the monopolising and detestable system of Nepotism, which has since taken possession of our public charities. Of such ingenious devices, the

growth of modern times, these good men were totally ignorant; and the manner in which they disposed of their property, attests their ignorance of such schemes. Their testamentary documents are extremely simple, providing against none of the contingent abuses which have since occurred: they merely direct certain property to be disposed of in a particular way for a specific purpose. To give force to these orders, executors or governors were necessary; and to qualify the latter for the discharge of a sacred duty, an act of incorporation was required. The spirit both of the wills and legislative enactments, simply empowers the governors to carry the intentions of the testators into execution in the most economical and efficient manner. By the former, the medical attendance, and the price to be paid for it in the endowed establishments, are specified; by the latter, no discretionary power is conceded to the governors to dispense with these directions. Neither has authority been conferred on Mr. Harrison, the treasurer of Guy's Hospital, to erect theatres and museums on the foundation of that institution, for the private advantage of the surgeons; or on the governors of Bartholomew's Hospital to erect similar buildings with the funds of that charity, for the private advantage of Mr. Abernethy. Nor are Messrs. Colles and Cusack of Dublin, empowered to convert the superfluous apartments of Stevens's Hospital into a medical barrack for their pupils; on the contrary, the price of the medical attendance is fixed by the testators, who, from the low rate at which they settled it, were obviously of opinion, that an appointment to one of their institutions, like virtue, would prove its own reward, without the profits arising from the sale of pathology. Lest this should not be the case, and that the surgeons and physicians might be at a loss by the acceptance of the office, they considerately allowed them carriage hire, as the only remuneration which they were to receive directly from the charities. This they considered quite sufficient, well knowing that an appointment to a metropolitan hospital must, from the patronage and other advantages which the situation confers, amply recompense for the services of its officers. Had the founders of these hospitals been aware that thousands might be annually added to their incomes, by even a moderate rate of admission into their wards, how the pulse of philanthropy would have beaten in their bosoms at such intelligence, and their testaments secured a revenue so conducive to an extension of their humane intentions. But of this secret they were unfortunately ignorant, and have consequently afforded an opportunity to more selfish men for the alienation of an income from those ends to which, in justice, it should be applied, as we have shown, from the spirit of the wills and incorporation of the governors. The latter, too, in the commencement of the custom, were, in all probability, unaware of the extent to which the permission of receiving fees would be carried. They conceived, no doubt, that the liberty might be a compensation to the officers for their trouble, and advantageous to the hospitals, as supplying them with a necessary grade of subordinate attendants. Though their motives may justify their conduct, it has led to the worst consequences; and had they only consulted the nature of their office, they must have perceived that they possessed no right to permit surgeons to realise fortunes by the profits of hospitals, or that if any such practice was permitted, the proceeds of it should be expended on the institutions in which they were collected. One wrong step, however, in the policies of a public body, as in the conduct of an individual, often leads to a series of errors. The surgeons of these establishments being "given a yard, took an ell;" and circumstances which subsequently occurred favoured their extension of power. The demand for medical officers produced by the late war and the increase of

population, showed them how much could be made by a well-organised system of college and hospital taxation. No artifice for the cultivation of this fertile field was consequently left unattempted; nor are the public capable of appreciating the vast sums which have been realised by the success of these schemes. The examiners of colleges became hospital surgeons; their sons, nephews, and friends, were elected to similar offices: the family dynasties thus formed shot their branches among the governors of our charities, until that complicated system, confining students to particular times and places for the acquisition of professional knowledge and brooding over British medicine and surgery, like a night-mare, was produced. The various steps in the process by which the grievances, to which we have specially directed public attention on this occasion, has been gradually evolved, have been thus superficially pointed out; and it must be obvious to every reflecting observer, that the cause of the evil does not so much lie in the nature or political condition of our charities, compared with those of other countries, as in the selfish advantage which was taken of the opportunities which they unfortunately afforded for the purposes of misrule and oppression. These institutions might undoubtedly, and with much advantage to their own interests, be made substitutes for the better constituted schools of practical medicine and surgery on the Continent, if the governors of them only performed their duty with conscientious zeal for the promotion of charity and science. That they have not done so, we do not refer them for proofs to the foreign precedents, the facts, or the arguments here adduced; our own country supplies ample evidence of the errors of their conduct, and illustration of the truths which we have advanced. We allude to the hospital of Sir Patrick Dun in Dublin, and the Royal Infirmary in Edinburgh. In the former, by the intervention of government, the fees of admission were reduced to an easily available standard, and are, we believe, in part appropriated to the use of the institution; in the latter, the governors, impressed with the necessity of rendering it an available school of medicine, and seeing the interests of the charity in a just light, also fixed the price of attendance at five pounds ten per annum, which is appropriated to the establishment. Now in institutions of precisely a similar character, designed for the accomplishment of the same objects, attended by the same description of students, and superintended by medical officers in the same profession and rank of life, we conceive that the opposite policies pursued in these hospitals, and the others of which we have been speaking, cannot both, unless right and wrong can co-exist in the same proposition, be correct.

THE report of a contemplated change, in the usual period of graduation, in the University of Edinburgh this season, reminds us of noticing some absurd and mischievous regulations connected with that august and unmeaning ceremony. We allude to the custom, and its consequences, of detaining students there three months after the course of lectures has terminated, and after most of them have passed their examinations, for the purpose of being *doctorated* in the legitimate form. It is unnecessary to offer a single remark on the inutility of such pageants; they are, in every respect, unworthy of science and its professors. It requires no adventitious aid, from the hands of an undertaker or a master of ceremonies, to impress its votaries with a sense of its dignity; upon those who are most capable of appreciating its severe and simple majesty, these melodramatic artifices are wasted; to those who are not, they have much the same effect as that produced by a fancy-ball or a masquerade. The grounds, upon which the idle spectacle under consideration has been

defended, are, that there may be time for examining the candidates a second time in public, for their composition of answers to particular cases proposed by the professors, for impugning theses, and for that portion of the inceptive graduates denominated "non-botanists," to attend Dr. Graham's prelections, for a month or so, on botany. These are the professed objects of the detention of students for three months in Edinburgh (and when were colleges or corporations without feasible reasons for their conduct?) the true objects of the arrangement may be found in the patriotic desire of the professors, to serve the interest of the "gude toon," by putting some extra pounds in the pockets of its shop and lodging keepers. That these are the real ends proposed in enforcing the measure, we have the indirect testimony, by an examination of the reasons assigned for its support, and the direct evidence both oral and written, of one of the parties, Dr. Duncan, jun., to the same effect, in his now forgotten defence of the University of Edinburgh. As to time for the examination, the candidates, no matter what their number might be, could readily be examined in a fortnight, and each be permitted to depart, as he passed the awful tribunal. The second examination is proved to be a mere pretext, by the fact of no pupil being known to have been rejected at this mock investigation. To attach the slightest importance to the composition of cases propounded by the professors, as a criterion of the writer's capability to compose in the Latin language, or to practise his profession, is but to trifle with the discernment of every observer, who happens to be aware that these cases are often, and may always be made up by a grinder. The impugning and defence of theses are, for similar reasons, mere mockeries; the graduate's degree being actually engrossed and signed by the various authorities, at the time that these sham-battles are in progress in the class-rooms. To save appearances, can be the only motive for deferring the examination of the non-botanists, until they have attended one month on Dr. Graham's course, and even this end is but poorly preserved by the means adopted. Every one knows that a pupil cannot learn botany in a month, so as to be able to stand an examination in that science; but all arguments on this head, are superseded by the knowledge of the fact, that pupils are rarely examined in botany to any extent, and, we may say, never rejected for their ignorance of Linnæus or Smith. If, therefore, it be necessary to take out Dr. Graham's ticket, as ticket-taking is the fashion, why, in the name of heaven, let pupils throw him his sop; but let them not be inconvenienced by such frivolous pretences, by which the common sense of the public cannot be longer deceived, or the students themselves served. Admitting, however, that the presumed objects of the arrangement acted upon, were as important as they are nugatory, they are far outweighed by the disadvantages consequent on the present system. Many pupils are naturally anxious, after perhaps a confinement of some years to return home, and others on account of business, at the earliest moment after the conclusion of their academical studies. With others, the expense of residing in Edinburgh is a consideration, and one certainly of a rational kind, as it obviously serves no useful purpose. This sacrifice of time, expense, and business, is grounded, as we have shown, upon no arguments of just or necessary expediency; and concluded by a ceremony ludicrous in itself, and also adding to the items of expense. The affectation of compelling the graduates to appear in gowns one day of their academic existence, and that the last, is the more ridiculous in the University of Edinburgh, the discipline of which does not require its students "penulam portare," as in other Colleges; and when the usage is even dispensed with by many of the profes-

sors, while in the actual exercise of their functions. Yet for this solitary instance of adhering to an antiquated usage, the graduates are obliged to pay one guinea for the use of the cloak to the principal porter, who keeps a sort of wardrobe "to let" for this absurd purpose. We notice this petty exaction, not so much on account of the sum paid by the student, as to protest against the practice of colleges in general throwing the support of their servants on the pupil. The professors are the party benefited, and they should consequently pay their door and ticket-keepers; or the town council, patrons of the university, and representatives of the city, which, according to Dr. Duncan, jun. is so much served by the presence of a medical school, should either pay these individuals, or at least see that the imposition did not fall on the students. The professors might, in fact, as well demand that their butlers and coachmen should be paid by the pupils. Dr. Allison, we are happy to understand, has been zealous for some time in his endeavours to persuade the Senatus to dispense with the fooleries which have just been pointed out; and whether owing to his just remonstrances or not, the day for graduation is stated to be fixed for the 12th of July this season, instead of 2d of August. It is more probable, however, that the Senatus has found more imperative reasons for a gradual concession to public opinion, than Dr. Alison's, in the number of their graduates for this year, and in the opposition with which they are threatened by the London University, or the impotent attempt of the Irish College of Physicians to realise, by their new regulations, the plan of degrees being granted by the University of Dublin in four years, as proposed last summer in this Journal. Adversity is a stern monitress, and we have no doubt that the discipline of past experience will, in time, work a salutary change in the conduct of the Senatus, who have so long rioted in the abuses of monopoly.

We beg to direct the attention of the reader to the following valuable communication from Dr. Bushe, in which it will be seen that *another cure* of carotid aneurism has been effected by tying the vessel on the distal side of ths tumour.

A Case where the Right Carotid Artery was successfully Tied, on the distal side of a large Aneurismal Tumour. By George Bushe, M.D., of the Royal College of Surgeons in Ireland, and Assistant Surgeon to the Forces.*

Mary Covis, æt. 36, in March, 1826, observed a pulsating tumour about the size of a small hen's egg, in the upper part of the lower third of the right side of the neck, corresponding to the situation of the carotid artery, which, to the present period, (Sept. 2d, 1827) has progressively enlarged. A prominent tumour now extends from the clavicle on the right side, upwards to near the os hyoides, pressing on the trachea, and bearing it off to the opposite side, and passing under the sterno-mastoid muscle (which is stretched over it) to nearly an inch beyond its outer border. The integuments of this side of the neck, particularly in front of the tumour, are thin, shining, and loaded with varicose veins. The tumour is firm at its circumference, but soft in its centre, and, by pressure, its size can be diminished; it pulsates strongly, the throbs being synchronous with those of the left ventricle of the heart. The stethoscope indicates it to be purely aneurismal, and, by this instrument, the left side of the heart appears to be acting on an increased quan-

* Some person, signing himself "A Surgeon of Chatham," sent a superficial account of this case to the Editor of The Lancet, written ten days after the operation, in which he stated, that he was induced to do so, fearing that the despotism which reigns in the Medical Department of the Army, might prevent my tendering it to the public; therefore, I feel compelled to inform that Gentleman, that if he will look to the records of medicine and surgery, he will find, that some of our military medical officers have, since the appointment of the present Director General, by the publication of their experience, contributed not a little to the improvement of our art, and that so far from there being a wish in the department to crush merit, every opportunity is afforded the most junior officer to advance himself (as far as military regulations will permit) by laudable exertions.

tity of blood, with more force than natural. The poor woman is much emaciated, and her deglutition and respiration, which have been much impaired for some months, are now almost annihilated.

6. Dr. Clarke, physician to the forces; staff-surgeons Burton, Clarke, and Daun, with other officers of the medical staff, and most of the neighbouring practitioners, assembled this day; and, after considering the case, were of opinion that an operation would be fruitless, in consequence of the advanced stage of the disease, and moreover, from the magnitude of the tumour, it would be impossible to find the carotid artery.

11. This morning, my medical friends wrote to me saying, "That as Covis had not swallowed any thing for the last nine days, her respiration was becoming more alarming, and her voice had almost failed her, added to her own supplications and the entreaties of her friends, they wished that I might now attempt to secure the carotid on the distal side of the aneurism." Accordingly, at three o'clock, P.M., I proceeded as follows:—The patient being placed on a table, with her head and shoulders slightly elevated, I endeavoured to gain as much space as possible, by bending her neck to the opposite side; but this I found totally impracticable, from the dreadful suffering and sense of immediate suffocation she experienced on the slightest attempt to accomplish this end; therefore, with her head rather inclined to the diseased side, I commenced an incision at the angle of the jaw, (which was very prominent,) and carried it obliquely downwards and forwards for two inches, in a direction corresponding to the anterior edge of the sterno-mastoid muscle; by which the external jugular vein was exposed, crossing the centre of the wound; and fearing troublesome hæmorrhage from its division, I included it within two ligatures, and then cut between them; the cervical fascia and platysma being dissected off, the anterior edge of the sterno-mastoid was readily brought into view, by the side of which lay a tortuous plexus of dilated veins; these being pushed off with the handle of the knife, I endeavoured to divaricate the lips of the wound with brass retractors, but from the tense state of the sterno-mastoid muscle, I found it almost impossible, and the slightest attempt produced much pain and more laboured respiration, with swelling of the cervical veins, and, from these difficulties, added to the great depth at which the carotid lay, in consequence of the magnitude of the tumour forcing all the parts out of their natural situation, I found it necessary to divide the integuments on the upper part of the tumour to the extent of an inch, and by this expedient I was enabled to lacerate the cellular tissue in the neighbourhood of the hyoides, which bone I at length reached, and found that it was situated between one and a half and two inches from the surface; then, by a little manipulation, I succeeded in pushing the tumour somewhat downwards, and to the opposite side; thus exposing the sheath of the vessels, which, when I had removed the descendens noni to the outer side, was opened in the usual manner; but, as far as I could judge in the deep and bloody cavity, with the great impediment of an enormous internal jugular vein. The portion of the artery immediately above the aneurism was dilated, and not more than half an inch of its extremity appeared sound, on which, with a common silver probe, I placed a single silk ligature. The wound was lightly dressed, and the patient put to bed, not having been more than fifteen minutes on the table. Before I tied the ligature, I allowed many of the gentlemen present to examine if the artery was really included; as I feared a difference of opinion might exist as to my veracity, a short time before having read in THE LANCET a lecture of Mr. Liston's, in which he scouted the idea of Mr. Wardrop's ever having placed a ligature on the carotid, beyond an aneurismal sac.

Immediately on the tightening of the ligature, Dr. Clark observed to me, that the tumour was more soft and less prominent than before the operation; and this, to those who heard the observation, and myself, was obvious enough; but, if I recollect well, a similar change was observed in the case operated on by Mr. Lambert. In the commencement of the case it may be read, that the poor woman had not swallowed any thing for nine days, that her respiration was particularly distressing, and that her voice had almost failed her; but the reader will not be a little surprised when I say, that before the wound was dressed, she swallowed nearly ten ounces of wine and water, and such was her relief, that she actually thanked me for the benefit I had conferred on her, and, if allowed, would have prolonged the conversation.

So far I have copied verbatim from notes taken as the circumstances occurred; but the operation being safely executed, a continuation of the details, after this manner, can be no more interesting, and as long narrations never fail to exhaust the most studious, I have thought proper to condense the remainder of this case. Until the 14th day she required four small bleedings, to keep down arterial action, and ease pain of the right side of the heart; gentle enemata were employed to regulate her bowels; her respiration and deglutition rapidly improved; her food consisted of strong beef tea and jelly, and she had easy nights, without the

slightest tendency to orthopnœa, from which she had suffered much previous to the operation; the tumour rapidly decreased, and its pulsations became more weak. The ligature was cast off on the 19th day,* and the wound was healed on the 27th, at which period she left her bed, the tumour being reduced to one half its bulk, and almost free from pulsation.

At the present time, April 19th, she is in perfect health; there is scarcely a remnant of the tumour, the inordinate action of the heart has ceased, and her respiration and deglutition are natural.

I shall now conclude this brief paper with a few concise observations, which perhaps may not be useless.—Dilatation of the vessel may have been the first morbid change in the above case; but when I saw the woman, there was a sac communicating with the artery, as described by Scarpa. The carotid was undoubtedly secured on the distal side of the tumour; and I never tied, or saw an artery tied, on the cardiac side of an aneurism, where the cure was more perfect. I have not seen any of Mr. Wardrop's cases, nor that of Mr. Lambert, but I have read of them all in THE LANCET; and I feel convinced that the Editor of that periodical has performed a public good, in recommending the ligature of arteries on the distal side of aneurisms, in cases where it is impossible to follow the precepts of J. Hunter. For the last six months I have kept this case from the public eye, that I might speak firmly and without contradiction as to its termination; and though it is foreign to my occupation in life, and my desire also, to litigate on any subject, professional or otherwise, yet I cannot refrain from stating that, in my opinion, Dr. James Johnson has not acted judiciously in ridiculing a foreign journalist because he had offered praise to English surgeons for the advancement they had made in this department of their art; and if heretofore Dr. Johnson could find no successful operation on the principle of Deschamps, let him profit by this, and in future learn to be more guarded when criticising matters of serious importance to the advancement of professional knowledge and the well-being of mankind.

As every fact that can tend to prove or disprove an unsettled point must be considered more or less valuable, it may not be useless to subjoin, as an appendix to this case, a concise account of a patient who, in the summer of 1823, was admitted into the Whitworth Medical Hospital, Dublin, under the care of Dr. Cuming. His complaint, on admission, was registered as paralysis of the right arm; but a large tumour being discovered in the axilla, the late Professor Todd was called to see the patient; and, after careful examination, he gave it as his opinion that it was an aneurism, which, from its magnitude, had lost its pulsation; but, to settle the point, he punctured it, and florid blood followed the insertion of a probe. When passed inwards for about three inches, the nature of the case being decided, the man was removed to the Richmond Surgical Hospital; where, from an attack of erysipelas consequent on the puncture, he died in a few days. Mr. Todd requested that I might examine the body, and, from notes made after the dissection, I abstract the following:—"The aneurism, which was of large size, occupied the right axilla; the sac, in many places, was almost absorbed, and adhered firmly to the upper and outer part of this cavity; when opened, it contained large quantities of laminated fibrine, and, in its centre, was a cavity holding about eight ounces of coagulated blood; communicating with the cavity, there was an opening of this size in the axillary artery, below which the vessel was obliterated for the space of half an inch, corresponding to the situation where the sac so firmly adhered."—Here, then, was a case where the aneurism was undergoing a spontaneous cure, in consequence of the pressure of the tumour having obliterated the artery on its distal side; and I look upon it as a valuable fact, towards confirming the utility of reviving the operation of Deschamps; and so much was I impressed with this opinion, that before Mr. Wardrop published his first essay, I recommended the operation in a case of large carotid aneurism, in a public hospital; but my chance was to be laughed at. However, when I again meet the two surgeons who so wantonly ridiculed me, it will be my turn to laugh at them.

Chatham, April 23d, 1828.

---

* This period will no doubt appear long, but when I secure vessels for aneurism, I never employ the force recommended by the late Dr. Jones, as I am convinced the division of the two inner tunics is not necessary for the effusion of a sufficient quantity of lymph to become the medium of adhesion; and I have but little doubt, that if surgeons would use less force on the application of these ligatures secondary hæmorrhage would be a less uncommon consequence of operations for aneurisms. The period is not far distant when I may submit this subject more fully to the public.

WESTMINSTER MEDICAL SOCIETY,

April 26, 1828.

Last Meeting of the 19*th Session.*

Dr. Somerville in the Chair.

DISCUSSION ON PHTHISIS.

Dr. Milligan introduced the subject of Phthisis Pulmonalis, which he defined as consisting of certain phenomena referrible to the development of tubercles in the lungs, which tubercles may remain quiescent for a long period, or become softened and coughed up, leaving a cavity. The indications of cure, Dr. Milligan considered, were, to promote the resolution of the tubercles, and to allay inflammation; the remedial measures he recommended were, a combination of tincture of nux vomica, iodine, and digitalis, a vegetable and milk diet, daily exercise, warm clothing, a temperature of 60° to 68°, a residence in the south of France or Italy during the winter months. If the patient have pain in the chest or hæmoptoe, then, Dr. M. observed, blood-letting may be had recourse to; but it should be used cautiously, and the local abstraction of blood, by cupping or leeches, is preferable to general blood-letting.

Dr. Milligan next proposed the following questions for the consideration of the Society:—Is phthisis curable,—is it an hereditary disease; and, if so, can we avert it? When tuberculous matter is deposited, can it be resolved, or can we prevent its further progress, so as to prolong life to an indefinite period? Is hæmoptoe a cause or consequence of phthisis? Lastly, Is the expectoration of pus necessarily fatal? The questions, as respects the sanability of phthisis, its hereditary nature, and the possibility of obtaining a resolution of tuberculous matter, were answered by Dr. M. in the affirmative. Hæmoptoe he considered rather as a symptom than a cause of phthisis, and purulent expectoration as not necessarily fatal. Several cases were related in confirmation of the latter opinion.

Dr. Barry remarked that phthisis, according to the definition given, does not begin until the softening of the tubercle takes place. The nature of tubercle, and the manner of its formation, were important subjects for consideration; he believed that the greyish granule which is first seen is consequent upon inflammation. Dr. Barry contended that there are no facts on record which prove the absorption of tuberculous matter; believing that the deposit was a consequence of inflammation, he would depend on a cautious use of the lancet; in respect to local blood-letting, he considered it to be, in many cases, decidedly injurious; and he appealed to the experience of Dr. Clark of Rome (who was present), whether he had not seen hæmoptoe induced by the application of leeches to the chest.

Mr. Hunt inquired whether pulmonary tubercles are not found to be, in many instances, congenital.

Dr. A. T. Thomson combated the opinion of Dr. Barry, that the deposit of tuberculous matter is the result of inflammatory action; asking why, if it really were so, we did not see tuberculous matter in a great number of cases where the most unequivocal signs of inflammation have prevailed. Dr. T. related the particulars of a case occurring in a member of his own family, who had all the symptoms of a confirmed phthisis, but, under a voyage to Madeira, recovered.

Mr. Lambert thought that the circumstances of tubercles being found in the lungs of the fœtus, and also of their presence in numerous instances where no signs of inflammatory action had ever existed, were in themselves sufficient evidence of the fallacy of the doctrine which referred them to inflammation. Mr. L. wished to learn the opinion of the Society on the contagiousness of phthisis.

Dr. Gregory denied that tubercles had ever been found in the lungs of the fœtus, or in any instance where the signs of inflammation had not existed.

Dr. Johnstone related the particulars of a case of tubercular phthisis occurring in a medical man, where, after death, a large cavity was found in the lungs, which had become lined, and the disease evidently was in the progress towards cure.

Dr. Barry now mitigated his former assertions, by avowing that he did not consider inflammation to be essentially necessary in all cases to the production of tuberculous matter; but he thought it was always the cause of the development of the tubercles.

Mr. Bennett argued that it is proved tuberculous matter is not the product of inflammation, by its being found in the fœtus, by its not being met with at the latter periods of life, by the lung being sound in the vicinity of the tubercle, and by these bodies being found in animals not prone to inflammation. He thought it highly probable that tubercles were parasitic animals; that they had an animalcular origin, commencing as hydatids, according to the opinion of Dr. Baron. Mr. B. further remarked, that in Paris, where cows and horses are often badly kept, it is not unusual for these animals to die of tubercular phthisis.

There were a few other observations, which fell from members in different parts of the debate, which are important, and we may here condense them.—Dr. Thompson

spoke of a case in which, as he believed, the tincture of iodine had prevented the development of tubercles: the patient was a delicate boy, eighteen years of age; he had a scrofulous diathesis, and many of his family had died of tubercular phthisis; the iodine was exhibited in consequence of bronchocele; and although the patient had previously all the symptoms which had been present with the other members of his family, and had been the forerunners of fatal disease; yet, under the use of the medicine, his general health improved, and he became a stout man. The tincture of iodine was given, to the extent of thirty-five minims, three times a day; and it was readily detected in the urine, by means of starch. Mr. Hunt, having seen many cases of threatened phthisis yield to the exhibition of tonics, regarded the doctrine of Dr. Barry as highly injurious. Dr. Milligan said he had not exhibited the tincture of nux vomica in any case of phthisis, but had given it in one case of bronchial affection with great success; and Mr. Bingham, on this point, observed, that as the medicine in question is almost a specific in dysentery, some analogy might perhaps be found in the two diseases, phthisis and dysentery, which would serve to explain the modus agendi of the nux vomica. In reference to Dr. Barry's assertion, that leeches applied in the immediate vicinity of an inflamed organ, acted injuriously by drawing blood to the part, a Member stated that he was in the constant habit of applying leeches to the inside of the eyelid in cases of acute inflammation of the conjunctiva.

At the conclusion of the debate, Dr. Somerville addressed the meeting. He took a brief retrospect of the formation and progress of the Society; commented, in terms of congratulation, on its present flourishing condition, and the amicable manner in which the debates of the present session had been conducted; and concluded by announcing that the Society had now closed its meetings until next October.

Dr. Somerville left the chair amidst loud applause.

LONDON MEDICAL SOCIETY.

April 28, 1828.

Dr. Haslam, President, in the Chair.

DISCUSSION ON THE MEANS OF SUPPLYING SUBJECTS FOR ANATOMICAL PURPOSES.

In the last report of the proceedings of this Society, it was announced that a committee had been appointed, for the purpose of framing a petition to be presented to the House of Lords, complaining of the impediments which now oppose the cultivation of anatomical science.

This evening, a petition was read, drawn up by Dr. Shearman and Dr. Burne, two of the committee; it was nearly similar to the one agreed upon for the Commons, of which we gave a copy last week. It seemed, however, to be the general opinion of the Society, that petitioning the Lords at the present moment was supererogatory, inasmuch as the House of Commons have appointed a Committee, with full powers to investigate the subject. Under these circumstances, therefore, it was argued that it would be better to await the decision of the Committee, and then, if an adequate remedy were not proposed, to petition both Houses of Parliament.

It was eventually determined, that the petition should be withdrawn for the present; but an animated discussion was kept up, during the remainder of the evening, on that part of the penal law which consigns the body of the murderer to dissection. It was very ably argued by various members, that so long as the present clause remains, condemning the murderer to dissection, the public will never consent to the appropriation even of unclaimed bodies, to anatomical purposes; and, for this reason, that dissection being now made by law a part of the punishment inflicted on the most vile offender against God or man, the public naturally regard it as a stigma, which they will not permit to be affixed to the unoffending poor. Mr. Kingdon very justly remarked, that the clause alluded to, is the "pivot" on which all our grievances turn; and, that it is imperatively necessary the law should be repealed as a preliminary measure.

MR. ABERNETHY'S CIRCULAR.

"*Addressed to the Governors of St. Bartholomew's Hospital, by Mr. Abernethy.*

My Lords and Gentlemen,

When the Governors accepted my resignation of the office of surgeon at their last Midsummer court, they did me the honour of voting me their thanks for my past services, and expressed their desire, that I should be requested to continue my lectures as heretofore, and also that I should be elected a governor. The latter subject was, however, in conformity to custom, referred to the consideration of the Committee, which subsequently declared, that it could not recommend me as a governor, because I was a lecturer.

The alleged reason must, I think, appear invalid to every unbiassed person. I was a

lecturer before any theatre was built in your hospital, and continued to lecture for nearly forty years, perfectly free and independent of the governors. In the year 1826, the governors thought it right to elect the lecturer of the medical school at their annual midsummer meeting; and the Committee, on that occasion, recommended, "that Mr. Abernethy be continued lecturer." Surely this cannot be deemed an election; and, being entirely unsolicited on my part, it cannot convert my former freedom into present bondage. In the following year, Aug. 1827, the Committee consigned the appointment of lecturer to the medical officers, and thereby annulled the supposition of their deriving such appointment from the governors, and consequently of the lecturers being accounted officers of the hospital.

It is a custom of the hospital, that if a governor accept an office belonging to that establishment, and receive a charge and salary, he cannot then possess and exercise the privileges of a governor. The lecturers neither receive charge nor salary, and therefore cannot be accounted officers of the hospital.

The reason assigned by the Committee for not recommending me as a governor appearing invalid, and the governors having, at their last Midsummer court, accepted the usual donation which has hitherto procured for the retiring medical officers the honour of being elected a governor, it is intended to be proposed and seconded, by governors of the highest respectability, that I should be elected a governor at your next general court, to be holden on the 23d inst., at twelve o'clock precisely. I beg leave to solicit your suffrages on this occasion, assuring you that my only view in wishing to obtain this honour, is that I may possess an opportunity of continuing my endeavours to promote the prosperity of your hospital, and of similar institutions.

The assigned, and apparently invalid, reason of the Committee for not proposing me as a governor, does not appear to be the real one. The Committee first took upon itself to investigate the truth of calumnies published against me in a most scandalous periodical pamphlet, called THE LANCET; it, however, neither condemned nor acquitted me, but has left me a suspected character. This conduct, on the part of your Committee, gives me, I think, a just claim to solicit the governors to hear my defence; and, if it can be made to appear that I have, in any instance, acted in a disingenuous or self-interested manner, I am willing to be expelled from your hospital with every degree of insult and injury that indignation or anger could inflict; but if it should appear that I have steadily pursued a directly opposite line of conduct, then, I trust, that the governors will not deny me the only reward which it is in their power to bestow for more than forty years of devotion to the interests of your hospital, and of the medical profession.

I have the honour to be,
My Lords and Gentlemen,
Your much obliged and very
obedient servant,
JOHN ABERNETHY.

Bedford Row, 21st April, 1828."

HOLE AND CORNER SURGERY AT GUY'S HOSPITAL.

To the Editor of THE LANCET.

SIR,—I am a hospital surgeon who, a few days since, arrived in London to make a short stay, and as private business unexpectedly called me hither, I did not seek introduction to any of your hospital surgeons; but learning that to-day was an operating day at Guy's Hospital, I repaired there this morning, and in the waiting room saw a notice, that there was to be an operation at one o'clock, which I heard was to be performed by Mr. A. Key; when the hour approached, the pupils began to enter the operating theatre, and I followed, (I should hope with that modesty which becomes a stranger), but, to my surprise, my steps were suddenly shortened by the rude interference of a sturdy porter; and I was compelled to withdraw. Now, Mr. Editor, it has fallen to my lot to have performed almost all the capital operations of surgery; as the one for stone, aneurism, hernia, &c. in a public hospital and private life, and I have always made it a rule to invite those medical gentlemen whom I knew, and admit those who wished to see me operate; and, Sir, I am fully convinced that it becomes every hospital surgeon to allow his professional brethren the gratification, (if they consider it in that light,) of witnessing his skill and dexterity; and in London and other large towns, the hospital surgeons should recollect, that strangers are often passing through, who would wish to devote an hour in the week they may be enabled to remain, in contrasting practice and forming opinions, of men holding high official appointments. By affording this letter a place in your journal, you will oblige

Your humble servant,
G. B.

Tuesday, April 29th, 1828.

P.S. Should Mr. Key, Bransby Cooper, or other officers of this Hospital, bend their steps at any period towards the scene of action I may be engaged in, they shall meet with a more gentlemanly reception than I received in their hospital.

DR. FORBES AND MR. GUTHRIE.

To the Editor of THE LANCET.

SIR,—In your last Number, Dr. Forbes has stated, in his letter of the 15th of April, that the facts connected with the alteration of the admission ticket for the Westminster Eye Infirmary, "might possibly be known only to Mr. Guthrie and himself," and from this infers, that the resolution of the Committee attributing incorrectness of statement to himself, may, probably, be founded in error: this seems plausible enough, but *Dr. Forbes well knows it is not true*, as was proved by the following affidavit, which was laid before the Committee, and corroborated in the presence of Dr. Forbes, by the senior pupils attending the Institution at the period in question.

I am, Sir,
Your humble servant,
J. D. TEBBS.

April 29, 1828.

(Copy.)

5, Stafford Place, Pimlico,
March 10, 1828.

My dear Sir,—To the questions you have submitted to me, I beg to give the following answers:

Ques. 1st. At what time did I change my hours of attendance at the Infirmary?

Ans. On the 2d of January, 1827.

Ques. 2d. Did Dr. Forbes make any alteration in the hours of attendance in consequence?

Ans. Yes, from the same date he always came at half past eleven.

Ques. 3d. Were the patients regularly informed of the change?

Ans. For at least a fortnight, (and I feel pretty certain during the whole month of December,) I mentioned it frequently on each Infirmary morning to both patients and pupils, requesting them to disseminate it also, and I have heard you do the same. I likewise, by your order, wrote notices to the same effect, which were pasted on the doors of the waiting rooms, and not removed for some weeks after the alteration.

Ques. 4th. Did you ask me whether any change should be made in the admission letters?

Ans. I perfectly remember asking you what had better be done about them, as we had but recently had a fresh supply (about 500, I think) printed. You replied, "Those need not be wasted; they will do if the word twelve be written in the margin, and ten be erased." After a few mornings, half past eleven was substituted for twelve, Dr. Forbes having stated that he could not attend at the latter hour, as it would interfere with his other engagements. From the commencement of January till the end of May, when I left the Infirmary, I never failed to make the written alteration, and scarcely a letter was written during that period for any patient but by myself, as the books will testify.

I remain, my dear Sir,
Yours very faithfully,
J. D. TEBBS.

To G. J. Guthrie, Esq.
2, Berkeley Street, Piccadilly.

Middlesex.

I hereby make affidavit that the whole of this letter is true.

J. D. TEBBS.

5, Stafford Place, Pimlico.

Sworn at the Police Office, Great Marlborough Street, this 11th day of March, 1828, before me.

(Signed) J. F. CONANT.

EDINBURGH VETERINARY SCHOOL.

THE veterinary lectures, by Mr. Dick, under the patronage of the Highland Society of Scotland, being concluded for this session, seven of the practical students presented themselves for examination, on Wednesday last. Several eminent medical gentlemen of this city kindly afforded their aid, in superintending and conducting the business of the day, and, from the mode of examination adopted, they were unanimously enabled to express their high satisfaction at the proficiency of the students, and to recommend them strongly to public favour. Besides the Committee, charged with the superintendence of the Veterinary School, with Mr. Macdonald of Staffa, principal secretary, and Mr. Gordon, assistant-secretary, the following directors and members were present:—Sir John Hope of Pinkie, Bart.; Sir R. K. Dick of Prestonfield, Bart.; Sir David Maxwell of Cardones, Bart.; the very reverend Principal Baird; G. M. Grant, Esq. of Ballindalloch; J. Corse Scott, Esq. of Sinton; Commissioner Ferrier; A. Young, Esq. of Harburn; R. C. Rattray, Esq.; and A. Fergusson, Esq. of Woodhill. Before separating, Mr. Wood, in the name of his professional brethren and himself, took occasion to notice, in very flattering terms, their sense of Mr. Dick's exertions and success in imparting knowledge to his pupils, and their conviction of the immense advantage, which must accrue from such an establishment as the Edinburgh Veterinary School.

ON VISION, BY T. WILLIAMS, ESQ.

To the Editor of THE LANCET.

SIR,—An essay appeared in the last Number* of THE LANCET, on the subject of vision, in reference to which, the author would remark, that the results of all his experiments are evidently accordant with optical principles, but he then studiously avoided noticing the rationale of his data, it being his exclusive intention to establish positions on decisive experiments. His main object was to deduce physiological arguments from optical facts—facts demonstrable to the illiterate and the wise; and arguments, not more calculated to biss the mind of the optician than that of the student unskilled in the science. But, if a theoretical explanation be not deemed superfluous, it will be inserted, when required, in any appropriate publication. The operation of well known scientific principles is not always detected, and therefore not always adduced, in explanation of natural phenomena. The following quotation from Nicholson's Journal (quarto series) will afford a striking example.

"Every attentive observer must have taken notice, that light is of as much consequence to artificial vision as magnifying power. It may, therefore, afford matter of surprise, that the most variable of all adjustments of the eye, viz., that of aperture, should never be introduced into our artificial combinations. Distant woods, and other land objects, are invisible to a high magnifying power *for want of light*, when the same object may be distinctly seen with a lower. By means of an artificial iris, which an ingenious artist will find little difficulty in contriving, this disadvantage in telescopes might be obviated," &c. &c.

Now, the writer of this ought to have known, that it is absolutely impossible to correct this defect in the powerful telescope, for the very cause of its great power is the cause of the disadvantage he would attempt to obviate, viz., the low refractive power of the object-glass. The small aperture of the instrument, so far from being the cause, has an opposite tendency, and no degree of light, however obtained, would effect the desired improvement. This is well worthy the attention of the physiologist; it will enable him to conceive the important conditions on which the higher classes of animals possess the power of extensive vision. If the refractive powers of the human eye had been equal to that of the minor animals, objects might have been seen nearer, which would have been no material advantage, while the power of distant vision would have been greatly diminished. Again, if the refractive powers of the eyes of the minor animals were identical with those of the higher classes, a needless power of distant vision had been granted, and one positively essential denied, viz., that of seeing to seize their prey or eat their food, which, when sufficiently near, would not only have been but dimly seen, but also such approximating objects would tend to confuse others more remote. Thus defective might have been the structure of the *natural* camera obscura, had it been possible for nature to slight her own laws, and such is the important default, we often observe in those which are made with regard to the rules of art, as imposed by the fallible dictates of reason.

T. WILLIAMS.

* In the article by the same author, p. 70, of Number 242, the following errata occur:—

Second paragraph, for "usual," read *visual*.
Third ——— for "seem," read *seemed*.
Seventh —— —— for "bases," read *lenses*.

ST. BARTHOLOMEW'S HOSPITAL.

LARGE POLYPUS, GROWING FROM THE WHOLE CIRCUMFERENCE OF THE OS UTERI.

SARAH LLOYD, aged 41, a stout healthy looking woman, was admitted into the Hospital, March 12, 1828, under the care of Mr. Lawrence. Six months ago, she was delivered by the forceps of a still born, full sized child. During delivery, the accoucheur, who is an intelligent practitioner in the country, observed for the first time a polypus in the vagina, so large that he at first mistook it for the head of the child.

The tumour has since gradually increased, being attended with a sensation of weight and bearing down, and with mucous discharge, sometimes mixed with blood. There has not been much pain, and the constitution has been but little affected. The catamenial discharge has ceased.

At the time of admission, a tumour nearly as large as a child's head, protruded from the vagina, into which it could be completely returned by moderate pressure. It was a firm and nearly insensible mass, of a somewhat pyriform shape, with a surface for the most part smooth, but at some points a little knotted, deep red, and plentifully bedewed with mucus. On passing the finger up the vagina, the neck of the tumour was felt as large as the wrist; its texture was firm, and the patient complained of pain when it was pressed. In the recumbent position, the tumour remained in the vagina;

but it protruded externally, and occasioned increased pain when the patient rose and walked about. There was copious discharge of thin mucus from the vagina; but no hæmorrhage had ever taken place. The fæces and urine were voided without difficulty; the general health was not impaired. Mr. Lawrence requested Dr. Gooch to see the patient, and after the most careful examination, neither of these gentlemen could feel any portion of the os tincæ. They both concurred in opinion as to the propriety of removing the tumour by ligature.

The patient was ordered to confine herself to the horizontal posture, and the bowels were kept open by the occasional use of saline aperients. On the 25th of March, a strong silk ligature was passed around the root of the tumour, by means of a double canula, and drawn tightly; it caused a little pain, which increased towards the evening, when a dose of laudanum was given with relief. The ligature was drawn tight every day; it broke on the 28th, and was immediately replaced by a stronger one. The surface of the tumour assumed a dark livid, and then a black sloughy appearance, and produced a copious fœtid discharge. There was severe pain shooting up the loins, heat of skin, thirst, restlessness, furred tongue, and nausea. The hypogastric region and abdomen were free from pain and tenderness; the bowels, which were costive, were freely moved by the use of mild glysters, and the pain was much alleviated by small and repeated doses of Dover's powder. A lotion of the chloruret of soda applied to the tumour completely corrected the fœtor. On the seventh day after the application of the ligature, violent hæmorrhage suddenly came on from the vagina, and a very large quantity of blood was lost, proving nearly fatal. Cold cloths were applied externally, and a solution of alum was thrown up the vagina. Brandy, wine, and ammonia, were freely administered, and the heat of body was restored. She continued in an extremely feeble state for about 48 hours; she then recovered considerably. The pain and sense of bearing down, which she likened to labour pains, continued; she was occasionally sick, and the bowels were moved with difficulty; there was, however, no tension, pain, or tenderness of the abdomen. The tumour grew more livid, and its surface presented an ash-coloured gangrenous aspect; its bulk was much reduced, and there was a considerable discharge from it.

On the 3d of April, Mr. Lawrence thought it advisable to remove a portion of the tumour, but as he feared it was not completely deprived of its vitality, he first made a slight incision at its lower part; a quantity of dark coloured blood immediately flowed out, and confirmed his suspicions. Alum lotion was applied, and the bleeding soon stopped. The poor woman grew more feeble, and sank at last on the 8th of April, fifteen days after the application of the ligature.

Examination twenty hours after death.

On laying open the cavity of the abdomen, not the least evidence of peritoneal inflammation could be discovered. The symphysis pubis was divided, and the uterus and its appendages taken out. The uterus was of its natural size; its neck was elongated, and formed a continuous surface with the root of the tumour. Viewed externally, no portion of the os tincæ could be discovered. The ulceration which had been produced by the ligature had not extended very deep through the dense substance composing the neck of the tumour. Through the peritoneum, which is reflected from the posterior surface of the uterus to the rectum, was a ragged opening, about an inch in length, and opposite to this, and in the back part of the uterus, was a small superficial ulceration. The surrounding peritoneum, and that lining the cavity of the pelvis, were healthy. The cavity of the uterus was found to communicate externally by a small opening at the inferior part of the tumour, and on making a perpendicular incision through the centre of the uterus and tumour, the root of the latter was found attached to the whole circumference of the os uteri, and completely incorporated with its cervix. The tumour consisted of a hard compact substance, intersected by membranous septa, presenting a whitish coloured aspect.

On Saturday last, Mr. Lawrence performed the operation of lithotomy on a little boy about four years old. Blizard's knife was used, and there was some difficulty in passing it into the bladder, in consequence of its beak being too long for the small groove of the staff. The stone was about the size of a bean, very friable, and in extracting, some portions of it were broken off in the bladder; these were removed, and the bladder washed out with luke warm water. The little patient is doing remarkably well.

EXTRAORDINARY CASE OF DEATH, CAUSED BY INANITION THROUGH SCIRRHUS AND CONSTRICTION OF THE ŒSOPHAGUS.

[From a Correspondent at Colchester.]

Elizabeth Chapman, ætat. 38, had been under the care of the surgeons of Bartholomew's Hospital* for some time, and died in

* Our reporter informs us, that this woman was in the Hospital some months since. She remained there about six weeks,

three days after leaving. She was inspected at her own request, for satisfaction to her friends. She had neither passage by stool, nor upwards, for fourteen weeks previous to her death.

The body was opened by Mr. Smith, assistant-surgeon to J. Barker, Esq., Colchester, under his superintendence. Upon laying open the thorax, the lungs were found much shrunk and inflamed; they were not more than a quarter their natural size; a little coloured fluid was found in the right side of the chest; adhesions had formed between the pleura costalis and pulmonalis.

The œsophagus was found in a thickened, contracted, and schirrous state, for about two inches in length, at a distance of about an inch from the heart's giving off the descending aorta; the passage, at this place, would scarcely admit of the smallest silver probe.

The stomach was nearly empty, and pretty much inflamed; the gall-bladder was full of dark unhealthy bile, almost pitch black; the liver, in general, healthy, excepting about two inches; on the right side of the gall-bladder were found several gall-stones embedded in the substance of the liver, some of which protruded beyond the external surface; the largest was about the size of a bean.

The intestines exhibited a general state of inflammation, with several gangrenous spots; the colon contained an immense number of scybala, some of them entirely blocking up the alvine passage, being of the diameter of the intestinal canal; they were so hard, as to be with difficulty broken down by the fingers.

ST. THOMAS'S HOSPITAL.

SINGULAR INSTANCE OF VARICOSE ENLARGEMENT OF THE SUPERFICIAL ABDOMINAL VEINS.

John Edwards, ætat. 24, a glazier, of sallow complexion, and of middle stature, was admitted into the hospital on the 27th of March, under the care of the junior surgeon, on account of an ulcer on the right leg.

The account which the man gave was, that he had typhus fever about five years previously, and that as soon as he was convalescent, and began to take exercise, his legs swelled, the veins became much dilated and tortuous, and ulceration soon ensued. The ulcer, on account of which he was admitted, appears to have been of a superficial kind; it is now, April 28, quite healed, and our attention was only directed to this case, in consequence of the singularly varicosed condition of the superficial abdominal veins.

The veins along each rectus muscle are so much enlarged as to be clearly perceptible at some distance; and they are exceedingly tortuous. In each inguinal region, the veins are so much distended as to form a tumour of considerable size; on the left side the swelling is as large as a hen's egg. The veins of each leg and thigh are in a similar varicose condition; the left leg is still œdematous, and over the head of the fibula, the integuments are evidently disposed to ulcerate. The man's health is tolerably good, but the varices become so much enlarged and painful on exercise that he is precluded from pursuing his ordinary employment.

The treatment which has been adopted since the patient's admission, has consisted in the administration of Plummer's pill at night, and an occasional dose of "*Cherry Brandy.*"* The ulcer, as we before stated, was speedily healed, under the use of poultice and simple dressings, and to the left leg a saturnine lotion is now applied.

The man is at present in Edward's ward, and the case is well worthy of personal inspection. It has been proposed to take a cast of the abdominal veins, but it has not yet been effected.

AMPUTATION OF THE THIGH BY MR. GREEN.

On the 18th of April, Mr. J. H. Green amputated the thigh, in consequence of disease of the knee-joint. The patient was a girl of florid complexion, 17 years of age, and the affection was of many years standing; the history which she gave was that of repeated attacks of inflammation in the joint. The leg was considerably flexed, and partial anchylosis had taken place; she complained of little pain, and her general health was not much disturbed; but, as the limb was totally useless, in consequence of her being unable to bring the foot to the ground, at her own earnest solicitation it was removed. The common circular operation was performed, and the girl, up to the present period, April 24, is doing well.

---

and was under the care of Mr. Earle. She was unable to swallow either solids or liquids; strong broths were thrown up the rectum; and her bowels, which were very inactive, were moved every two or three days by injections.—Ed.

* This is a Hospital cant term for the Haust. Sennæ Comp. as "Darby and Joan" is for the acid and alkaline mixture, given in a state of effervescence. What will our married readers say to the latter simile?

AMPUTATION OF THE ARM BY MR. TRAVERS.

On Friday last, April 25, Mr. Travers removed the arm above the elbow, in consequence of severe injury to the elbow joint, comprising dislocation of the radius and ulna forwards, and fracture of the olecranon at its base, with an extensive contused wound. The patient was a middle-aged sailor; the accident occurred on the 9th of April, and he was admitted into the hospital on the same day: attempts were made to save the limb, but the wound eventually presented a sloughy aspect, and the constitutional derangement became so considerable that an operation was rendered imperative.

In the performance of the operation, there was nothing remarkable, except that it was exceedingly well executed.

GUY'S HOSPITAL.

CASE OF SIMULTANEOUS FRACTURE OF BOTH PATELLÆ, RESULTING FROM THE ACTION OF THE EXTENSOR MUSCLES.

JAMES MANSFIELD was admitted into Guy's Hospital on Sunday, April 20th, 1828, in consequence of his having received the injuries in question.

The patient (of middle stature, and muscular) stated, that on Wednesday, April 16th, he was wheeling a loaded barrow, the wheel of which became disengaged from its place, and he was suddenly thrown forwards. In an attempt to erect his body, to prevent falling upon his face, his knees cracked, and instantly bent under him, and he fell to the ground. He was found to be incapable of rising, or of standing when raised; he was, in consequence, taken home, and put under the care of a gentleman at Camberwell, at which place the accident happened. Considerable tumefaction followed the injury, and a great number of leeches were applied. No attempt was made at the time to reduce the fractured bones, and on the fourth day after the accident he was conveyed to the Hospital. The dresser immediately adjusted the patella straps, and under the use of these, the fractured portions were brought as nearly into apposition as possible: the spirit wash was constantly applied. The limbs were laid on straight splints, the legs were extended, and the thighs were very much bent upon the body. The separation of the fractured portions of the left patella was very trivial, whilst of the right knee it it was very considerable. The patient is, however, doing exceedingly well.

23d. The tumefaction has very much subsided, and the fractured portions of the left patella are in apposition. The effusion about the right knee still remains to such an extent, that the separate portions are about an inch asunder. The use of the spirit lotion has been dispensed with in the left knee, and is now only applied to the right. The thighs were a little more bent upon the body, and the shoulders raised with pillows to flex the pelvis. To day he was visited by Sir Astley Cooper, who expressed himself pleased with the manner in which the patient had been treated by the dresser.*

28. The patient is going on perfectly well.

OPERATION OF LITHOTOMY BY MR. KEY—THE STRAIGHT STAFF.

The operation of lithotomy was performed by Mr. Key, on Tuesday last, upon a little boy about three years of age, whose case was briefly adverted to in our last Number.

The instruments used on *this* occasion were but three in number: the straight knife, straight staff, and straight forceps. The whole of the operation, however, was not quite *straight*-forward work; the external incision was very fairly made; the knife afterwards carried onward, and the staff withdrawn. Mr. Key then passed his finger into the wound, but after a slight and gentle examination withdrew it, and having ascertained that he had not opened the bladder, he reintroduced the staff, and again putting his finger into the wound, carried the knife along it, and made an incision downwards and outwards. The forceps were introduced, and a calculus, of about the size of a nutmeg, extracted without difficulty.

The operation was completed in about two minutes; Mr. Key, throughout, manifesting the greatest coolness and self-possession; we observed, however, that the blood momentarily forsook his cheek, when he addressed the pupils after the operation, stating, that the staff, in the first instance, had slipped from the calculus, and that, in the first incision, he had failed to open the bladder.

Mr. Key subsequently remarked, that the staff was too short.

ST. GEORGE'S HOSPITAL.

OPERATION OF LITHOTOMY, BY MR. KEATE.

MR. KEATE performed the operation of lithotomy, on Thursday the 24th, upon a little boy. The *bistouri cachee* was used on this occasion, and a calculus, of about the

* Although it was the *seventh* day from the accident, the worthy baronet did not recommend the parts to be *freely moved*; he has probably altered his views since the celebrated "flint case."

size of a sparrow's egg, was extracted; the operation was very dexterously performed, not more than one minute being occupied in accomplishing it.

On the same day, Mr. Brodie "did" the operation of castration, also that of amputation of the thigh, and of the leg; in the former case on account of scrofulous disease of the knee-joint, and, in the latter, for disease of the ancle.

CASE OF MR. ROBERT KEATE.

We are gratified in being enabled to state that phlebotomising has had a most salutary effect in reducing the "constitutional irritation" of this little patient. The fits are less violent, and of shorter duration; the serum of the blood withdrawn contained a large portion of *bile*—there was but little firmness or solidity in the mass.

WESTMINSTER HOSPITAL.

STRANGULATED FEMORAL HERNIA, GANGRENE, AND RUPTURE OF THE INTESTINES.

Ann Cooke, æt. 55, was admitted into this hospital on Thursday evening, April 24, with strangulated femoral hernia, which had been down for several days. According to her statement, she has been subject to hernia for the last ten years; and, on *Thursday week*, she was seized with violent sickness, coughing, &c., which continued for upwards of four hours, during which time she says, that she perceived the hernia had descended into her left groin, and was greatly increased in size. As soon as she was admitted, Mr. Smith, the house-surgeon, had her placed in a warm bath, which not proving of any avail, Mr. Guthrie was sent for, and before his arrival another bath was used, which did not prove more effectual than the former. Mr. Guthrie saw her at nine o'clock, and made use of the taxis without success; considerable pressure having been made upon the tumour, without producing much pain, he deferred operating that evening, observing that the symptoms were not very urgent.

April 25. Mr. Guthrie saw her at nine this morning, and ordered her another bath, which did not prove of any more effect than the former. At twelve he saw her again, and performed the

Operation.

Mr. Guthrie divided the integuments and coats of the sac, in the usual manner; there was considerable difficulty, however, in finding the intestine; when found, it was observed to be of a very dark colour, owing, as the operator stated, to mortification having taken place. After some careful, though tedious dissections, the stricture was divided, and the intestine was returned; Mr. Guthrie then introduced his finger through the ring, but he hastily withdrew it, and a large quantity of *fæcal matter* immediately escaped, to the no small discomfiture and amazement of the operator, who, addressing the pupils, said "I He thought that he had used too much force." After the operation, the patient felt herself much relieved.

26. She has slept very little, and has had no motion per anum. A small quantity of fæcal matter has escaped from the wound; pulse 88. She was ordered an enema, composed of gruel and oleum ricini, every two hours. Tongue very much furred.

27. Abdomen rather swollen and painful; hirudines xviii. ordered to be applied to it; her pulse to day is 82; she has had several other motions per anum, and there is still a tenderness of the abdomen, also a slight discharge through the wound.

28. Much the same as yesterday. Pulse about 90.

29. The patient continues to go on very well; her pulse to-day is about 86. A lotion to be applied to the wound, composed of the chloride of soda 3ij.; water half a pint.

EPIGRAM

*On the Patient who suddenly decamped from Guy's Hospital, and passed over to St. Thomas's.**

Rash, thoughtless man! ah, whither dost thou fly!
If death appal thee, why *such haste to die*?

Bath, April 28th, 1828.

TO CORRESPONDENTS.

We shall insert Dr. Mackintosh's communication "On the cause of the effusion in the disease termed hydrocephalus," in an early Number.

The ungentlemanly and brutal conduct of a lecturer on anatomy, towards his house-pupils, deserves exposure.

Other Correspondents in our next.

---

* Vide Lancet, No. 241, p. 49.